MITCH KAPOR: WHY MICROSOFT MUST BE STOPPED

Northern California's Computer Magazine

June 17, 1998 • #180

FREE

MicroTimes™

www.microtimes.com

Digital blockbusters, clockwise from right: *Titanic*, *Anastasia*, and *Quest for Camelot*.

DIGITAL SHOWBIZ!

• Best Movie Web Sites • Animation Breakthroughs • Wall Street Meets Hollywood—Online • What's Ahead

Supercom...Commitment to Local Customer Support!!

- *Local Will Call*
- *Local Tech Support*
- *Local RMA*

Supercom is your *local* PC components distributor and manufacturer of custom computer systems.

TOUCH 400 Series Systems

Featuring Intel® Pentium® Processors with MMX™ Technology

TOUCH 500 Series Systems

Featuring Intel Pentium II Processors

TOUCH 600 Series Systems

Featuring Intel Pentium II Processors

TOUCH Enterprise Systems

Server Solutions, we built ours, let us build yours!

- Atlanta, GA
- Boston, MA
- Buffalo, NY
- Chicago, IL
- Cleveland, OH
- Columbus, OH
- Dallas, TX
- Denver, CO
- Houston, TX
- Kansas City, KS
- Miami, FL
- Minneapolis, MN
- Edison, NJ
- Phoenix, AZ
- Pittsburgh, PA
- Portland, OR
- San Antonio, TX
- San Diego, CA
- San Jose, CA
- Salt Lake City, UT
- Seattle, WA
- Vienna, VA
- Toronto
- Vancouver
- Montreal
- London, England
- Beijing, China

...and growing!

Call your local Supercom office at

1-800-888-1888

www.supercom.com

ISO 9002 Certified

Supercom

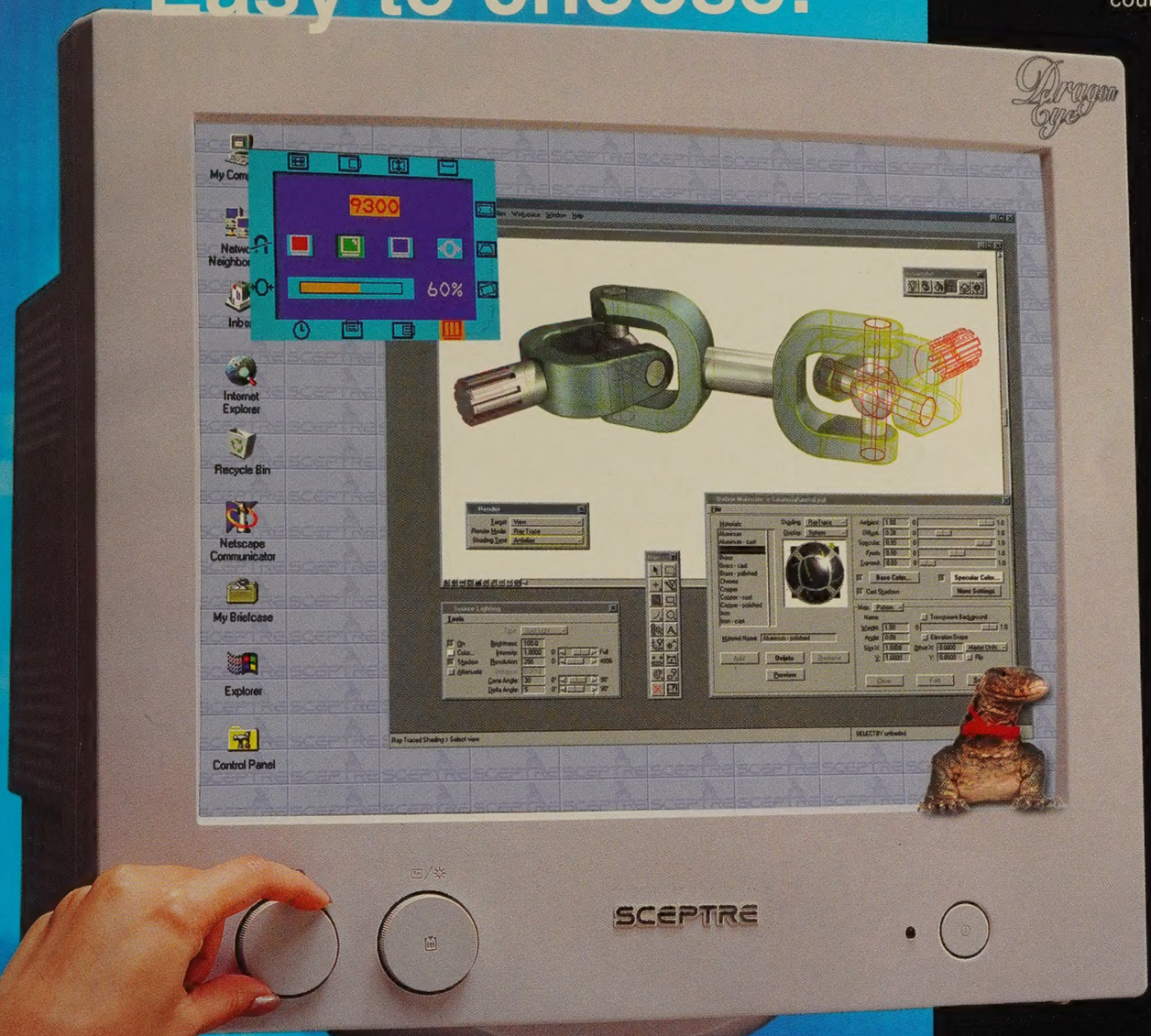
The intel Inside Logo and Pentium logos are registered trademarks and MMX is a trademark of Intel Corporation. All other product and company names are the trademarks or registered trademarks of their respective companies.

Because it is so

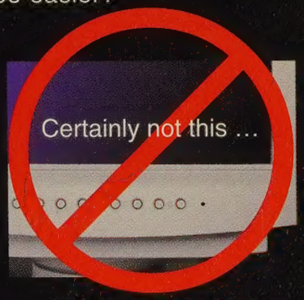
Easy to use ...

the Sceptre® Dragon Eye™ is

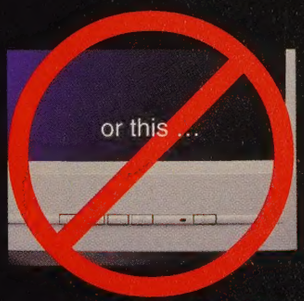
Easy to choose!



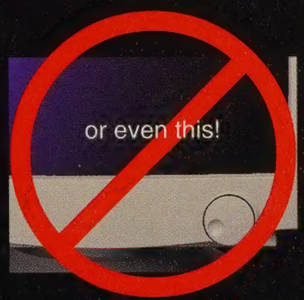
When it comes to managing complex technology, easier is better. The Dragon Eye™ by Sceptre® has the revolutionary ARRC™ interface. Just two controls: one for selection, one for adjustment. What could be easier?



Old-style technology
Too many buttons
Not user friendly



Same story here
as above



Overly simplified
More difficult to use
More prone to error

Dragon Eye

D97A

19-inch (18-inch viewable) CRT flat square monitor with AR/ASC
.22mm (horizontal) dot pitch, 1600 x 1200 resolution @ 75 Hz.
Sceptre's ARRC (Advanced Response Rotational Control)
Advanced Elliptical Aperture Multistep Dynamic Focus
Five year limited warranty
Auto Anti-Astigmatism
Optional USB

Sceptre's design ethos is appreciated by those who know. The ultra-high performance19-inch D97A was a Comdex award winner. Compare for yourself and you will see why! Call 888-580-5588 now for a dealer near you.

May 1998
COMPUTER PAPER Editor's CHOICE
Sceptre Dragon Eye
D54 15" CRT Monitor

Full line — 15 to 19-inch
Optional speakers — 15 and 17-inch
Optional USB — all models
Five year limited warranty — all models
Sceptre's ARRC™ — all models
Advanced Elliptical Aperture Multistep
Dynamic Focus — all models
Auto Anti-Astigmatism — all models

For more information:
WWW.SCEPTRE.COM

Visit Sceptre's Booth
At PC Expo, Booth # 2954 June 16-18, 1998. At Comdex Canada, Booth # 830 July, 8-10, 1998

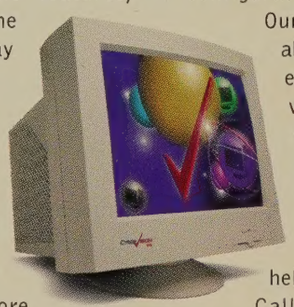
SCEPTRE®
EXCELLENCE FOR ALL THE WORLD TO SEE

The perfect fit to any system.

Whatever your requirements, CyberVision™ has the display monitor you need.

Whether it's for the internet, a home office, the family computer or a complete network—CyberVision delivers the features, performance and value you're looking for. From the beginning, CyberVision has stood for quality display products at an outstanding price.

Stringent engineering measures have helped spur the demand for CyberVision displays. Our award winning line of 14" - 21" (various viewables) monitors is packed with a wide range of features. Depending on your needs, choose from 1600 x 1200 maximum resolution or 1280 x 1024 with a flicker-free 89Hz refresh, a 0.22mm dot pitch, on-screen digital controls, TCO-92 compliance, Plug 'n Play, and much more.



Any authorized CyberVision Reseller can help you find the configuration that best fits your needs.

Our commitment extends well beyond the specifications. It's about Hassle-free Ownership,℠ which means we support every CyberVision monitor with a limited three-year warranty. And if desired, you may choose our fee-based CyberVision Priority Replacement™ (C.P.R.) program which delivers a replacement display within 48 hours†. Our technical support department is comprised of engineers who are standing by to answer your questions. Also, a dedicated customer service force is prepared to help with all of your other CyberVision display needs.

Call your preferred dealer today and ask for CyberVision.

CYBERVISION™

888-57-CYBER • www.cybervisiondisplays.com

C·E·L·E·B·R·A·T·I·N·G 60 YEARS OF SUCCESS March of Dimes

CyberVision is proud to be a supporter of March of Dimes.

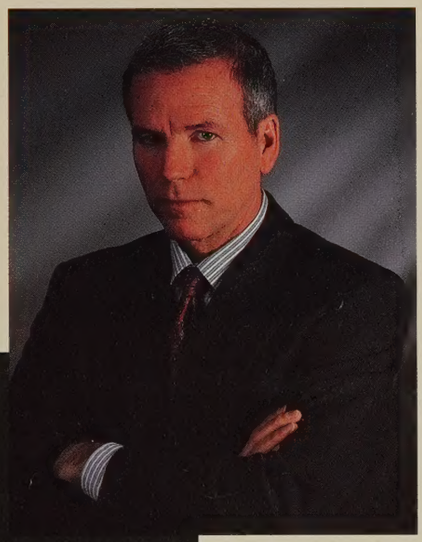
Computer Reseller News 1998 Market Leaders

Computer Reseller News May 1998

Computer Shopper 1997 Industry Achievement Award

Copyright©1998 CyberVision. All rights reserved. Corporate names and trademarks stated herein are the property of their respective companies. Specifications subject to change without notice. †Credit Card required to have a replacement unit shipped to you if your original unit needs servicing.

Have you PURCHASED any ILLEGAL SOFTWARE lately?



We have.

Microsoft has sued the following companies alleging that each has distributed counterfeit Microsoft products to undercover investigators:

- ▲ **Silicon Computers,** San Francisco, CA
- ▲ **Gogate International, inc.,** Fremont, CA
- ▲ **CHL Microsystems, Inc.,** Milpitas, CA
- ▲ **Meladi Electronics, Inc.,** Fremont, CA
- ▲ **CMOS Technologies, Inc.,** Santa Clara, CA
- ▲ **Advanced Digital Solutions International, Inc.,** Milpitas, CA

Make no mistake about it. Microsoft is very serious about going after software piracy and leveling the playing field for honest system builders. In fact, based on the results of ongoing test purchases, we've sent out close to 1,000 Cease & Desist letters this year, often followed by legal action. The list of lawsuits at left is proof of our commitment.

The consequences of trafficking in counterfeit goods are real:

Civil Damages: Up to $1 million per incident

Criminal Prosecution:

Individuals: Up to ten years and $2 million

Companies: Up to ten years and $5 million

The combined resources of Microsoft, the Business Software Alliance, and law enforcement agencies are behind this industry-wide effort.

If you're a system builder, be sure to protect yourself by obtaining Microsoft® OEM products from the authorized distributors listed below. If you're concerned about the legitimacy of your software, call 1-800-RU-LEGIT, e-mail piracy@microsoft.com, or visit our website at: www.microsoft.com/piracy/.

System Builders, please call 1-800-325-1233 to receive your FREE System Builder Program introduction pack.

BSA Business Software Alliance

Here are the authorized distributors for Microsoft software, your only assured source of genuine Microsoft products.

AMAX
(800) 800-6328 (U.S.)
(888) 228-2629 (Canada)

ASI
(800) 2000-ASI (U.S.)
(905) 470-1000 (Canada)

COMSTOR Innovative Distribution Services
(800) COMSTOR

D&H
(800) 340-1001 (U.S.)
(800) 340-1001 (Canada)

GATES/ARROW DISTRIBUTING
(800) 332-2222 (U.S.)
(800) 463-5562 (Canada East)
(800) 465-0699 (Canada West)

INGRAM MICRO
(800) 456-8000 (U.S.)
(800) 668-3450 (Canada)

KTX TECHNOLOGY
(888) 425-3343 (U.S.)
(888) 425-3343 (Canada)

MERISEL
(800) MERISEL (U.S.)
(800) MERISEL (Canada)

QDI
(510) 668-4933 (U.S.)
(905) 940-3827 (Canada)

REYES ELECTRONICS
(800) 968-6635 (U.S.)

INTERSOLVE
(800) 745-7700 (U.S.)

SOFTMART
(800) 661-6760 (U.S.)

SYNNEX
(800) 756-9888 (U.S.)

Tech Data CORPORATION
(800) 237-8931 (U.S.)
(800) 668-5588 (Canada)

Microsoft®

©1998 Microsoft Corporation. All rights reserved. Microsoft is a registered trademark of Microsoft Corporation. All other logos and names are property of their respective companies.

http://www.siliconrax.com - INDUSTRIAL RACKMOUNT SYSTEMS SPECIALISTS

File Edit View Go Favorites Help

Back Forward Stop Refresh Home Search Favorites History Channels Fullscreen Mail Print Edit

Address http://www.siliconrax.com/

Welcome to

Siliconrax
Industrial Computer Specialists

LATEST PRODUCTS | TECH SUPPORT | CUSTOMER SERVICE

FAULT-TOLERANT / FAULT-RESILIENT
RACKMOUNT COMPUTING SOLUTION

IN-HOUSE DESIGN ✔
MANUFACTURING ✔
CUSTOM MODIFICATION ✔
TURNKEY SOLUTION ✔

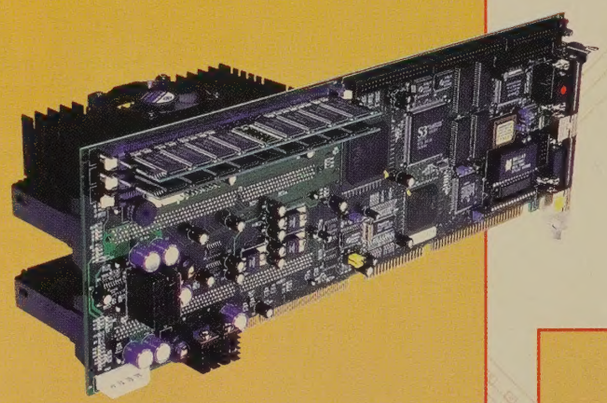
For detail product information,
Visit our website:
www.siliconrax.com

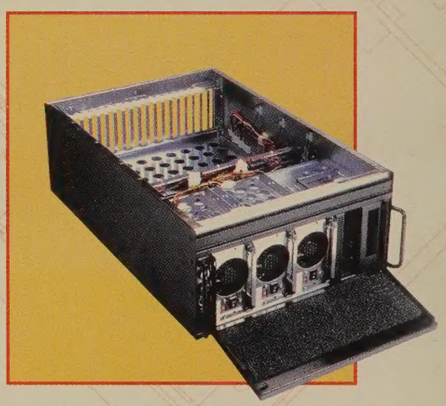
1-800-700-8560

Made in USA

N E W

Dual Pentium II
Single Board Computer





CHASSIS - AT/ATX, 8-20 SLOT, UP TO 8 OF 5.25 DRIVE BAYS

SBCs - 486 TO DUAL PEN II, VGA/SCSI/ETHERNET,
COMPATIBLE W/ WIN NT, OS/2, LAN, SCO UNIX...

MONITORS - 9" - 20" MONO SVGA

KEYBOARDS - 101/104 W/ TRACKBALL, SERIAL/ PS2

BACKPLANES - 3-20 SLOT, PCI/ISA/PCISA

NEMA

5 YEARS WARRANTY
ON
COMPLETE SYSTEMS

1202 Apollo Way, Sunnyvale, California 94086
Tel: (408) 720-1090 Fax (408) 245-2570
E-mail: info@siliconrax.com

Computer TELEPHONY CONFERENCE & EXPOSITION
March 2 - 4, 1999
Los Angeles Convention
Partners Pavillion, Booth No. 3700

Done | Internet zone

Stuck in a webjam?
Take 9Net Avenue. And fly.

web hosting from $14.95. unix or nt.

The Web is crucial for any on-line business. A webjam on the Net is a one-way street to loss of sales and missed opportunities. 9NetAvenue offers fully scalable **SGI Origin 2000 web servers** and state-of-the-art network appliance file servers that are linked through industrial strength **Cisco 7500 Series router**, into redundant **UUNet, MCI, and GTE International OC-3 lines**. It's all **protected by Fault Tolerance UPS systems** using diesel generators, and supported by a megaterabyte backup system. Using BGP-4 protocol and multi-homed connectivity, 9NetAvenue always finds the closest route to a massive OC-12 fiber optic backbone, so you're never bogged down in traffic. And with features like **PGP, SSI, mSQL, MS SQL, anonymous FTP and free shopping cart** – with multiple POP3 accounts, personal CGI directory and library, and unlimited forwarding aliasing and auto responders – your business can run flat-out and never get stopped. With the Dedicated Dual Pro Processor we will keep **Real Audio & Video** streaming capabilities at its best for you.

Take the express route to successful enterprise on the Net.
With 9NetAvenue your Web journey will always continue!

9Net ONE Plan $14.95/mo.
25MB disc space • 10 POP3 mailboxes

9Net PRO plan $39.95/mo.
100MB disc space • 25 POP3 mailboxes

99% uptime & 90 day money-back guarantee
Toll free multilingual tech-support

10 POP3 E-mail Accounts $7.95/mo.

Park Your Domain FREE

More on-line at www.9netave.net
Order on-line, get 1 month free.

dedicated server, yours or ours from $99/mo.
COMPAQ DELL digital Silicon Graphics

As an Internic "Premier Partner" we ensure instant set up and activation of an account.

iCat One stop e-commerce solution by iCat includes software, development, hosting, and a free listing in giantmall.com

real

1•888•9NETAVE 1•888•963•8283 1•201•933•0765 **www.9netave.net**

9NETAVENUE™

Two Small Steps for DecaView.

Introducing two small steps (19" and 21" long) we've taken to shake up the monitor market.
The DecaView 19" demolishes the high price barrier for 20" monitors
without significantly sacrificing viewing capabilities.
And the DecaView 21" offers true twopage viewing with amazing resolution and refresh rate.
With a complete product line including LCD, professional, graphic, and value monitors.

DecaView is the smart choice for people with an eye for technology.

The DecaView 21" .107 KHz
for 1600x1200 at 85Hz flicker-free refresh rate.

DP140	DP150	PA630	PA380
14"(13.8" Diagonal Viewable Area) 0.273*0.273 Pixel Pitch, Hor. Freq.:30-61KHz Max. Resolution: 1024x768	15" (15" Diagonal Viewable Area) 0.297*0.297 Pixel Pitch, Hor. Freq.:30-61KHz Max. Resolution: 1024x768	21"(20" Diagonal Viewable Area) 0.28mm/AG Stripe Pitch Hor. Freq.:30-107KHz Max. Resolution: 1600x1200@85Hz Manufactured in Japan	17"(16" Diagonal Viewable Area) 0.25mm/ AG Stripe Pitch Hor. Freq.:30-96KHz Max. Resolution: 1600x1200@75Hz 1280x1024@85Hz Manufactured in Japan

Decaview®

Catch Your Eyes. Catch Your Vision.

1236 San Luis Obispo Ave., Hayward, CA 94544
Tel: 510-429-8885
www.decaview .com
Toll Free Decaview Tech Support: 1-877-DECATEC (332-2832)

DECAVIEW AUTHORIZED RESELLERS

BAY AREA MICRO Inc. - 408-260-8796 • San Jose, CA
MICROBASE TECH. - 916-388-2000 • Sacramento, CA
BETA NINETIES - 415-974-1188 • San Francisco, CA
CHICOTEC - 408-954-8998 • San Jose, CA
IQ INFOQUEST - 650-917-9180 • Los Altos, CA
LJ SYSTEMS Corp. - 888-455-7978 • Hayward, CA

Two Giant Steps for DecaViewers.

"DecaView monitors have the same or better quality than all the leading brands! SO.....Why Pay More?"

The DecaView 19". With this new size, high prices are history.

*3-year limited warranty on parts, labor, and CRT with 1-year exchange policy**

Ask for and get your DecaView monitor at your nearest computer reseller today.

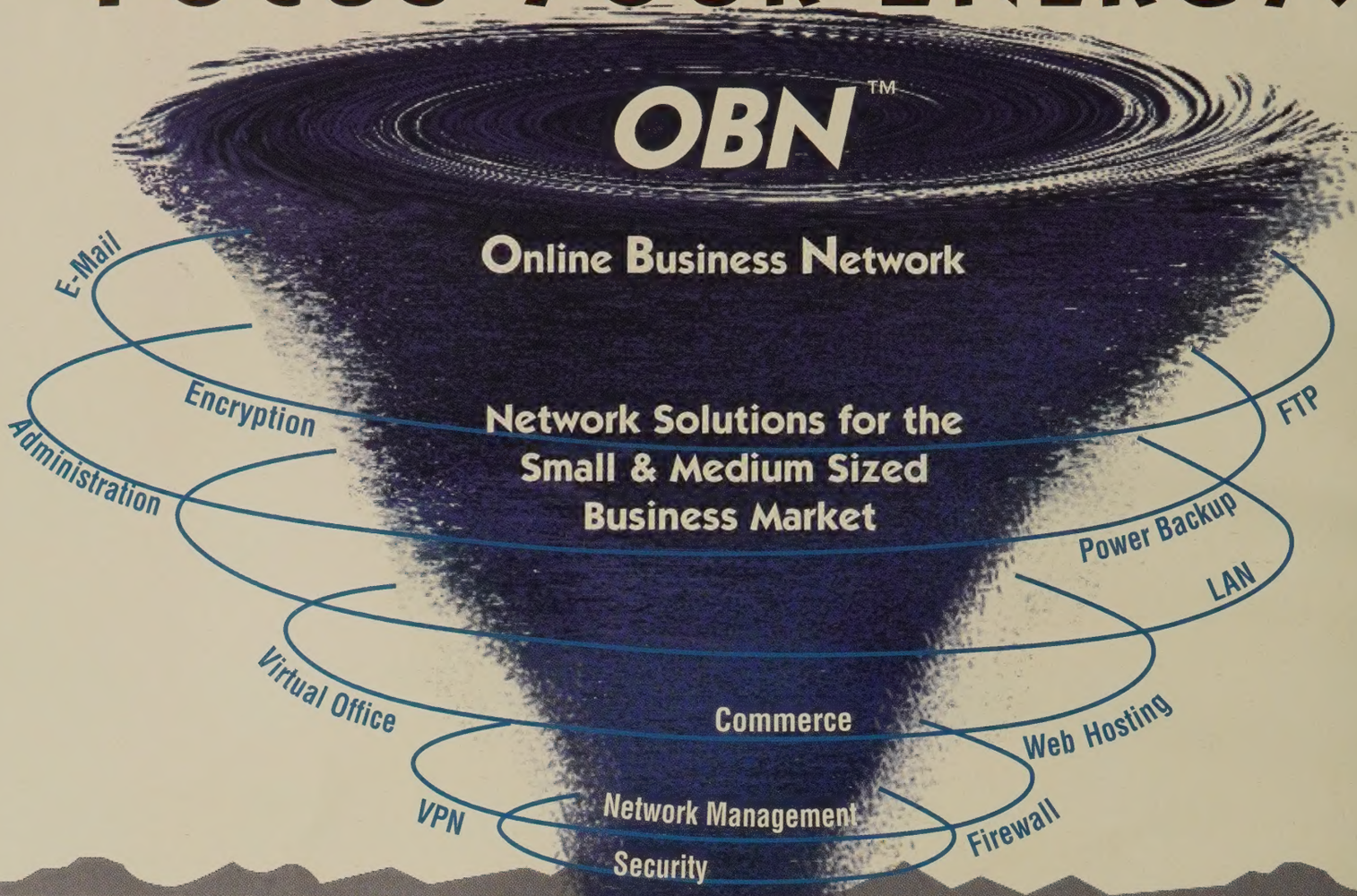
G400	GA387	G387	G380	V260
19"(18" Diagonal Viewable Area) 0.26mm Dot Pitch, Super High Contrast Hor. Freq.:30-95KHz 1600x1200@75Hz/ 1280x1024@85MHz	17"(16" Diagonal Viewable Area) 0.25mm/AG Stripe Pitch Hor. Freq.:30-95KHz Max. Resolution: 1600x1200@75Hz/ 1280x1024@85MHz	17"(16" Diagonal Viewable Area) 0.25mm Dot Pitch Hor. Freq.:30-95KHz Max. Resolution: 1600x1200@75Hz 1280x1024@85MHz	17"(16" Diagonal Viewable Area) 0.28mm Dot Pitch Hor. Freq.:30-70KHz 1280x1024/ 1024x768@85MHz	15"(13.8" Diagonal Viewable Area) Hor. Freq.:30-70KHz 1280x1024/ 1024x768@85MHz

AFA - 510-661-2828 • Fremont, CA
MICROBASE TECH. - 916-308-2000 • Sacramento, CA
COMPUTER JAM - 510-528-0070 • Berkeley, CA

TUNISS COMPUTER - 659-401-6138 • Burlingame, CA
MICRO CONCEPT - 510-781-0429 • Hayward, CA

3-Year Warranty of Parts
For Resellers Who Want...
Call 1-888-332-2808

FOCUS YOUR ENERGY!



OBS™ Online Business Server

OBS Services Include:

- E-mail
- Internet Access
- Local Area Network (LAN)
- Web Server
- Fax, File, & Print Servers
- Remote Access
- File Encryption
- Electronic Commerce

VMIS™ Virtual MIS

Remote Services Include:

- Network Monitoring 24x7
- Network Administration
- Firewall Monitoring & Analysis
- Data Backup Service
- Software Upgrades
- Power/Environment Monitoring
- Proactive Server Management
- 56K–T-1 Internet Access

NEBUCON
NET BUSINESS CONSORTIUM

1.877.NEBUCON • www.nebucon.com

The OBN. Mind Your Business. Leave the Technology to Us.

OBN service agreement includes the OBS & VMIS Service (no server hardware purchase required). One-time setup fee and service agreement per OBS. Hardware upgrade with extended service agreement. Additional charges for Internet connection. Call for complete details.

Novell. intel. Bay Networks AT&T Cisco Systems APC American Power Conversion

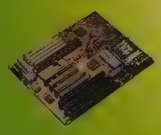
Terms and conditions are subject to change without notice. Nebucon, Inc. is not responsible for typographical errors. All logos are registered trademarks of their respective companies.

Why Great Computers

IDT WinChip™,

THE WINDOWS® MICROPROCESSOR,
makes possible a new breed of computer that delivers great value at a great price.

SUPPORTS OPEN STANDARDS.
IDT WinChip plugs into cost-optimized Socket 7 motherboards which support the latest technology such as AGP, USB and Firewire. The IDT WinChip and Socket 7 motherboards allow for low-cost PC upgrades and migration and deliver the industry's best price/performance.

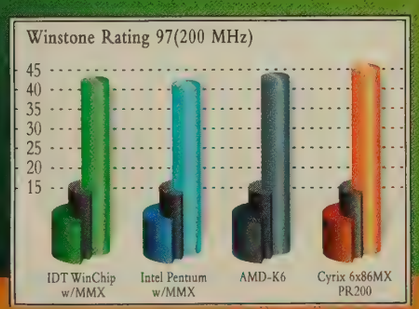


FULLY COMPATIBLE.
IDT WinChip runs Windows applications, peripherals and network environments. It's performance optimized for Windows and runs all programs optimized for MMX™ technology. IDT WinChip is certified by XXCAL and carries the Microsoft "designed for Windows 95" logo as proof of compatibility.

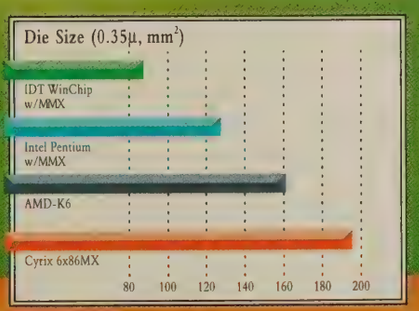
MORE RELIABLE OPERATION.
IDT WinChip's simplified design uses less power and runs cooler, so you get higher reliability as well as extended battery life for notebook users.

Designed for Microsoft Windows 95

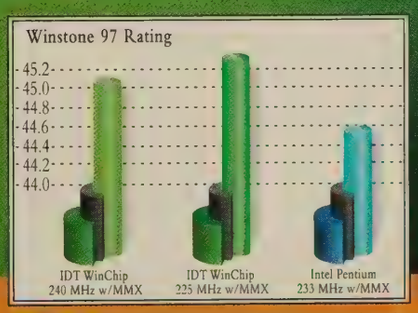
Now Cost Less.



For Windows business applications, IDT WinChip offers comparable performance to Intel Pentium® with MMX™ Technology, AMD-K6® and Cyrix 6x86MX™.



Smaller die area means lower production cost, lower power consumption and heat dissipation.



With Socket 7 architecture (available now and in the future), both 225 and 240 MHz IDT WinChip CPUs outperform Pentium, running at 233 MHz.

With IDT WinChip you get the confidence that comes from the expertise and long-term commitment of IDT, a major U.S. manufacturer of chips for computers, communications and networking. For more information visit us at:

www.winchip.com

FOR THE BEST IN PRICE/PERFORMANCE, ASK YOUR RESELLER TODAY ABOUT THE NEW BREED OF IDT WinChip-BASED DESKTOPS AND NOTEBOOKS.

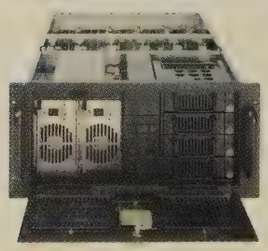
IDT **INTEGRATED DEVICE TECHNOLOGY** 2975 STENDER WAY, M/S C4-28 • SANTA CLARA, CA 95054 ©1998. WinChip is a trademark of Integrated Device Technology. MMX and Pentium with MMX Technology are trademarks of Intel Corporation. Microsoft, Windows and the Windows logo are registered trademarks of Microsoft Corporation. AMD-K6 is a trademark of Advanced Micro Devices, Inc. 6x86MX is a trademark of Cyrix. All other trademarks or registered trademarks are the property of their respective owners.

IN-HOUSE DESIGN + MANUFACTURING + CUSTOM MODIFICATION + TURNKEY SOLUTION

Quality, Working for You Around the Clock

Rackmount Computers

5200HT CT/Network Applications

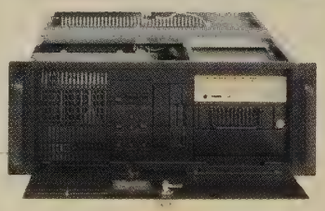


- 8-20 slots PCI/ISA BP support
- Split BP (Up to 4 Systems) support
- AT or ATX motherboard support
- Individual shock mounts for up to eight 5.25" devices
- Open 3.5" drive bay - not shock mounted
- Front panel support for 4 individual systems
- Air filters on all intake vents
- Front panel mounted activity & alarm LED's
- Steel and aluminum construction
- Hot swap fans & power supplies
- Fault Resilient Features include: Temperature Remote Monitoring, Hot Swap Fans, PS & HDD
- 19"(W) x 8.75"(H) x 26"(D)

Rock Solid Fault Resilient Protection

Computer TELEPHONY 1997 PRODUCT OF THE YEAR

4200HT Compact Enclosure



Fault Resilient System

- 8 to 14 slots Backplane Support
- AT or ATX Motherboard Support up to 5 drive bays
- Hot Swap PS (300W-400W AC, 235W ATX, 300W DC) or Single PS
- 82CFM cooling fans
- Dual 56CFM cooling fans*
- Shock mount drive bays*
- Chassis only available
- Fault Resilient Features include: Temperature Remote Monitoring, Hot Swap Fans, PS & HDD
- 19"(W) x 7"(H) x 20"(D)

* Optional

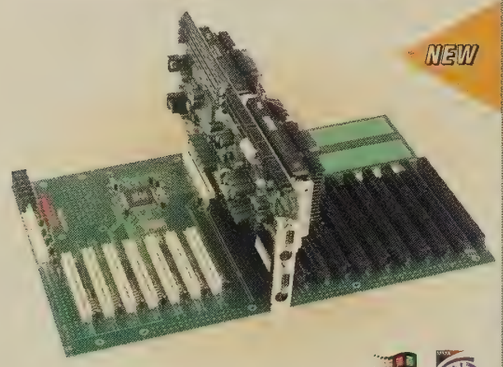
4085H Hard Drive Enclosure

- Eight 5.25" Drive Bays†
- Dual Hot Swap PS-400W(AC) or 300W(DC)*
- Hot Swap Removable Drives*
- Supports RAID Level 0, 1, 3 & 5
- 19"(W) x 7"(H) x 20"(D)

* Optional
† 8 drive bays with single power supplies
7 drive bays with hot swap power supplies

RAID

Dual Pentium® II



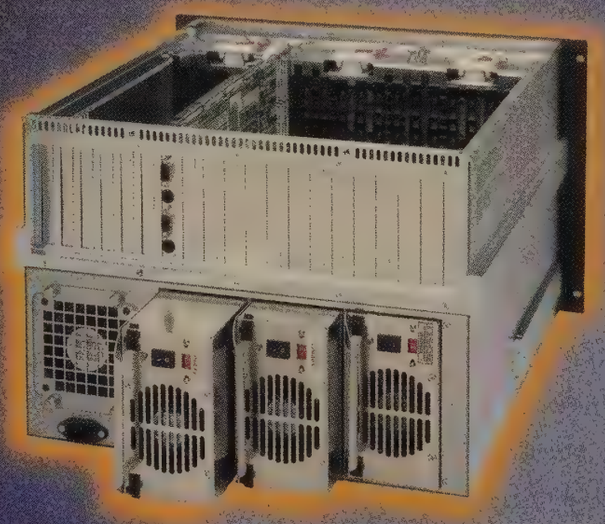
NEW

MICROSOFT WINDOWS NT COMPATIBLE

intel inside pentium

- **CPU:** Dual Pentium® II 233-333 MHz
- **Cache:** 512K Level II Cache built in CPU
- **Memory:** 8 to 384 SDRAM memory in 3 DIMM sockets
- **Chipset:** Intel® 440LX
- **BIOS:** AWARD plug and play
- **On Board I/O:** 2 RS232 ports, EPP/ECP parallel port, 2 EIDE ports with ultra DMA 33 support, USB and IrDA ports, PS/2 mouse and keyboard
- **OS Compatibility**: Windows NT/95, OS/2 Warp, SCO UNIX, Netware and DOS

3 Hot Swap Power Supply Fault Resilient CT/Network Server



Intelligent Fault Resilient Computer Telephony / Network Server

NEW

7000HT

Computer TELEPHONY 1997 PRODUCT OF THE YEAR

Made In U.S.A

- 8 to 20 Slot PCI/ISA Backplane Support
- Split Backplane Support (Up to 4 Systems)
- AT or ATX Motherboard Support
- Individual Shock Mounts for 8 Drives
- Fault Resilient Features include: Temperature Remote Monitoring, Hot Swap Fans, three 300W Hot Swap PS & HDD
- 19"(W) x 12.25"(H) x 18.5"(D)

Full Line of Rackmount Products

Rackmount Keyboards • Monitors • Expandable Rack Cabinets

A6634 ISO 9001 FC 443812-001 UL ISO 9001 APPRO International Inc. CE

APPR

PROMO#: AMT1012

APPRO International, Inc.

800 927 5464

TEL (408) 941-8100 **FAX** (408) 941-8111

446 South Abbott Ave., Milpitas, CA 95035

Call for Catalog

http://www.appro.com

info@appro.com

This Season's All-Star Player

FEATURES
No Performance Anxiety
•MMX enhanced technology for multimedia power performance
•Software compatibility for optimum 16-bit or 32-bit performance
•64-KByte internal cache to boost processing performance
•Pipeline architecture for multitask performance
What's the Difference?
Cyrix M II-300
Pentium® II
MMX™-enhanced
Windows® 95 Compatible
On-chip Cache
4/4K
32K
Sixth-generation Architechture
•The larger internal cache of the M II-300, which boosts performance by significantly reducing processing time, is the difference.
Increase Profit Margins
•The ability to add more desirable features like larger hard drives, more memory, faster modems and enhanced video cards creates a greater value for your customers and increases your profit margins.
Cyrix® MII™ PROCESSOR
Cyrix MII PROCESSOR
Cyrix®
Advancing the Standards

Play Ball!

The new Cyrix M II™-300 processor, the fastest chip of its kind, puts speed on the base pads and power at the plate.

The M II-300 equals the performance of the Pentium® II processor at a significantly lower cost. This savings allows you to produce feature-rich systems at the same price point. So, you can create a greater value for your customers while increasing your profit margins.

Cyrix also ensures the M II-300 hits a home run in compatibility with the latest games and business applications running on Windows® 98.

Step up to the plate with the performance of the Cyrix M II-300!

Arrow Electronics, Inc.	Hamilton	Pioneer	Wyle Direct
800-579-6633	800-778-2668	800-664-7365	800-414-4144

© 1998 Cyrix Corporation. Cyrix is a registered trademark and Cyrix M II-300 is a trademark of Cyrix Corporation. All other brands and names are the property of their respective owners. Megahertz-equivalent performance level. Based upon industry-standard benchmark comparisons to the Pentium® II processor when tested in equivalently configured computer systems. For further information on the performance of Cyrix processors, please visit the Cyrix web site at www.cyrix.com.

PENTIUM® II NOTEBOOK

ChemBook™ 6000 features a modular design that allows you to upgrade every key component on the system:

- IMM CPU to Pentium®II 266/300
- DVD with hardware MPEG2
- 3D Graphics

Pentium II 266 SPECIAL

- Mobile Pentium II 266
- 32 MB SDRAM
- 3 GB HDD
- Window 95

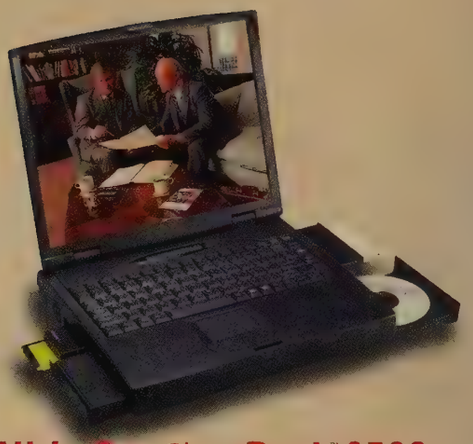
$2899

"...an impressive run of more than 5 hours on our Battery-Mark test."

PC Magazine
January 20, 1998

IMM Technology ChemBook™ 6000

- Intel 430TX PCI Chipset Core Logic
- IMM Packaging, Tillamook 233 / 266 MHz
- Built-in 16MB SDRAM
- Expandable memory up to 144MB
- 128-bit PCI Graphics Engine with graphics and video Accelerator
- 13.3" TFT XGA LCD
- Supports 32-bit CardBus & Zoomed Video
- Supports UltraDMA / 33 IDE
- Removable 20X CD-ROM (Smart Bay) and 1.44MB Floppy Drive, DVD (optional)
- Auto Tilt-Up when opening LCD Panel
- 16-bit Stereo Sound System and 3D Surround Sound
- 1 x USB Port, 1 x Fast Infrared Port (IrDA 1.1 / FIR) and 1 x S-Video TV-Out
- Intel LM 78 Hardware Monitor Circuit design



All-In-One ChemBook™ 9780

- Intel 430TX PCI Chipset
- Intel Pentium® Processor with MMX
- Intel Tillamook, 233 / 266 MHz / AMD K6 mobile
- Expandable memory up to 128MB EDO / SDRAM
- 4MB EDO Video Memory
- 64-bit PCI Graphics Engine with hardware GUI Accelerator
- 14.1" XGA / 12.1" SVGA TFT
- Removable 20X / 24X (optional) CD-ROM, DVD (optional)
- FDD Bay interchange with LS-120, Iomega Zip 100MB drive, 2nd HDD (2.5" or 3.0" slim)
- 16-bit Stereo and 3-D Surround Sound System
- Built-In WaveTable
- 2 x USB Ports / 1x Fast Infrared Port (IrDA / FIR)
- 2 x video jack (Video In / Out)
- Smart Battery / Supports Secondary Battery

15.1" Screen ChemBook™ 7000

- Full PC97 and ACPI V1.0 Compliant
- Intel 430TX PCI Chipset
- Intel Pentium® Processor with MMX
- Intel Tillamook, 233 / 266 MHz / AMD K6 mobile
- Expandable memory up to 128MB EDO
- 4MB EDO Video Memory
- 15.1" XGA TFT LCD
- Removable 20X / 24X (optional) CD-ROM, DVD (optional)
- FDD Bay interchange with LS-120, Iomega Zip 100MB drive, 2nd HDD (2.5" or 3.0" slim)
- 16-bit Stereo Sound System with Full-duplex and 3-D Surround Sound
- Built-In 1MB hardware WaveTable
- IIS interface for external ZV port or MPEG audio

Call **800-866-CHEM** or Visit **WWW.CHEMUSA.COM** for our ***MONTHLY SPECIALS***
CHEM USA Corp, 8445 Central Avenue, Newark CA 94560
Phone: 510-608-8818 Fax: 510-608-8828

CHEM USA
The Notebook Company

ChemBook is a trademark of CHEM USA. Pentium is a registered trademark of Intel Corporation.

BOTH SINGLE AND DUAL DRIVE MODELS AVAILABLE.
MULTIMEDIA PROCESSOR ACCELERATES DUPLICATION.
EXTERNAL SCSI-II PORT WORKS LIKE A STANDARD CD WRITER FOR CREATING CUSTOM DISKS.
TOTALLY SELF CONTAINED, NO CONNECTION TO A PC IS REQUIRED.
INTERNAL A/V HARD DRIVE STORES DISK IMAGES FOR MULTIPLE COPIES, AND CUSTOM AUDIO DISKS.
ADVANCED FORMAT DETECTION PRODUCES PERFECT DUPLICATES ON STANDARD CD-R MEDIA.
Dupe-It!

COPY ANY CD INSTANTLY. NO PC REQUIRED.

CD DUPE-IT!

Instantly duplicate CD-ROM disks for software distribution. Make backup copies of your favorite software on rugged, permanent media. Produce disks quickly and economically. No mastering or multimedia experience is required.

Insert your original disk and press "start." The multimedia processor quickly copies any disk to the internal A/V hard drive. Insert blank disks and make as many copies as you like. You'll produce identical, bit-for-bit duplicates. The system is totally self contained—no connection to a PC or Mac is required. Just plug in the power cord and press "start"—it's that easy.

BUY MANUFACTURER DIRECT: $1095

408 588-1110

You can even make your own custom audio disks without a PC! Insert your original CD's, select the tracks you want, and CD Dupe-It will copy them to the internal hard drive. Then insert a blank CD, and you'll have a custom audio disk with just the songs you want.

With the included CD mastering software, CD Dupe-It will work overtime as your personal CD mastering system. Just attach a SCSI cable to your PC or Mac, and you're ready to design and create your own original CD's. Similar systems used in duplication houses cost over $10,000. Now you can easily copy disks yourself for a fraction of the price.

CORPORATE SYSTEMS CENTER
3310 WOODWARD AVE., SANTA CLARA, CA 95054
WWW.CORPSYS.COM

Available at Disk Drive Depot, T-Zone and Halted Specialties. Software publishers—ask about our high-volume multi-drive duplication systems.

More speed earns extra life

UPGRADE TODAY!

One- to Two-Day Turnaround!!

INTEL
233 MMX PROCESSOR
$145.00
Upgrade Today - Free Labor

COMPAQ & PACKARD BELL SYSTEM UPGRADE
- New mini tower case w/ P's
- New Pentium ISA/PCI Mainboard
- Intel 233 MMX Processor & Fan
- 32MB SDRAM
- 2 MB PCI Video
- Free Labor

$369.00

PENTIUM® II ABIT (HIGHLY RATED) SYSTEM
- ABIT Pentium® II 440 LX Mainboard support 233 to 333 MHz
- ABIT Pentium® II 440 BX mainboard support 233 to 400 MHz . . . . . add $65
- 64 MB memory SDRAM
- 5.1GB Ultra DMA Hard disk
- 1.44 Teac Floppy
- ATI 4M AGP Video
- 32X CD ROM
- Creative Lab PCI Sound
- 3D Stereo Speaker
- Supra 56K modem Int.
- ATX Medium Tower w/250 p/s
- Keytronic P52 KB & m/s p/s mouse
- 17" Monitor
- Win 95 CD & manual

PII 233	$1425
PII 266	$1485
PII 300	$1595
PII 333	$1725
PII 350	$Call
PII 400	$Call

PENTIUM® II ASUS SYSTEM
- ASUS P2L 440LX Mainboard (233 to 333 MHz)
- ASUS P2B 440BX Mainboard(233 to 400 MHz) . . . . . add $50
- 64MB SDRAM
- 1.44 Teac Floppy Drive
- 6.4 UDMA ZDZ Harddrive
- MAXTIR Productiva 8M AGP Video
- USR 56K Int. modem V90
- 32X Toshiba CD ROM
- Creative nsonig Audio Sound Card
- 3D Stereo speaker
- ATX Medium Tower case w/ ps
- 17" Monitor .27
- Win 95 CD & Manual
- 104 KB & m/s mouse

PII 233	$1575
PII 266..	$1645
PII 300	$1765
PII 333	$1880
PII 350	$Call
PII 400	$Call

INTEL PENTIUM® II SYSTEM
- Intel AL 440 LX Pentium® II Mainboard (233 to 333)
- Intel SE 440 BX Pentium® II Mainboard (233 to 400 MHz, add $60)
- 64 MB SDRAM
- 6.4 UDMA Hard disk
- Matrox Millenium 8MB AGP
- 17" Monitor .25
- Toshiba 32x CD ROM
- Built-in Yamaha Sound
- 3D stereo speaker
- 56K USR Int. modem
- 1.44 TEAC Floppy
- ATX Medium Tower Case w/ p/s
- M/S Win 95 CD & Manual
- M/S Keyboard & M/S mouse

PII 233.	$1699
PII 266.	$1765
PII 300.	$1885
PII 333.	$2025
PII 350	$Call
PII 400	$Call

MOTHERBOARDS

ASUS SP-97V	$89	Intel Seattle w/PCI Sound	$225
ASUS TX 97	$125	Tyan 1692S P2	$145
ASUS P2L97	$169	Abit LX6 P2	$130
ASUS P2B97	$185	Abit BX6 P2	$175
Intel Atlanta w/Sound	$195		

PRINTERS

HP GLX1	$389	HP 4000	$1105
HP GPSE	$765	Epson Stylus 600	$259
HP 692C	$245	Epson Stylus 800	$339
HP 1600C	$1305		

HARD DISK

WD 2.5	$152	WD 6.4	$225
WD 3.2	$159	Fuji 3.2	$153
WD 4.3	$179	Fuji 4.3	$175
WD 5.1	$205	Fuji 6.4	$220

CPU & MEMORY

P 166MMX.	$109
P 200MMX.	$119
P 233MMX.	$145
PII 233.	$215
PII 266.	$239
PII 300.	$345
PII 333.	$449
PII 350...	$569
PII 400.	$789

CALL FOR CURRENT PRICES

MONITOR

15" Impression .28	$172	17" Sampo .28	$289
17" Impression .27	$299	15" Decaview .28	$155
15" Sampo .28	$179	17" Decaview .25	$329

NOTEBOOK & PRINTER MEMORY

TOSHIBA, HP, IBM DELL, TI, SONY, SHARP, OKIDATA, EPSON, APPLE, COMPAQ, FUJITSU

CALL-THE BEST PRICE!

MEMORY

16MB EDO SIMM.	$35	64 SDRAM.	$105
32MB EDO SIMM.	$55	128 SDRAM.	$185
64MB EDO SIMM.	$115	CALL FOR CURRENT PRICE	
32 SDRAM.	$55		

MORE THAN PERFECT *MORE THAN TEN*

TERMS & CONDITIONS

Parts Have 1-Year Warranty • Systems Have 1-Year Part & 2-Years Labor Warranty
• 20% Restocking Fee Will Be Charged
• Non-defective Returns • No Refund or Exchange after 30 Days from Invoice Date
• 20% Charge for Each Returned Check
• 15% Finance Charge on Unpaid Balance after Due Date •Customers are Responsible for Attorney Fee and Cost of Collection

• Prices subject to change without notice

COMPU

STORE HOURS: MON-FRI 9:00AM-7PM SAT 10AM-7PM

1-888-COMPU 11
650-246-3900
SOUTH SAN FRANCISCO
643 El Camino Real
South San Francisco, CA 94080
Fax 650-246-3901

MULTI-INTEGRATION CORPORATION

MIC COMPUTER

2670 So. White Road • Suite 100 • San Jose, CA 95148

Bus: (408) 238-8887 • (408) 238-8878

Fax: (408) 238-8895 • E-mail: miccomp@ix.netcom.com

Best Service • High Quality • Lowest Prices

Sale! POWER Multimedia System

- Pentium II Motherboard w/Intel 440LX AGP set
- Intel Pentium® Processor Cooling Fan
- 32MB 10ns SDRAM 168 pins
- Teac 1.44MB Floppy Drive
- 4.3GB Ultra ATA Hard Disk (33MB/S)
- YAMAHA sound OPL 16 PnP
- 24X EIDE CD ROM
- Diamond Stealth 4000 3D AGP with 4MB Video
- Premium ATX Medium Tower 235W PS
- Rockwell 56K Fax/Modem/Voice
- Windows 95 Enhanced Keyboard
- Logitec PS/2 mouse with pad
- Pair of 120W Multimedia Speakers
- Windows 95 CD/Manual add $85

Pentium® II 233MMX $749.00

Pentium® II 266MMX $799

Pentium® II 300MMX $919

Pentium® II 333MMX $1,039

Sale! SUPER POWER Multimedia System

- Pentium II Motherboard w/Intel 440BX AGP set
- Intel Pentium® Processor Cooling Fan
- 64MB 10ns SDRAM 168 pins
- Teac 1.44MB Floppy Drive
- 6.4GB Ultra ATA Hard Disk (33MB/S)
- YAMAHA sound OPL 16 PnP
- 32X EIDE CD ROM
- Matrox G100 3D AGP with 8MB Video
- Premium ATX Medium Tower 235W PS
- Rockwell 56K Fax/Modem/Voice
- Windows 95 Enhanced Keyboard
- Logitec PS/2 mouse with pad
- Pair of 120W Multimedia Speakers
- Windows 95 CD/Manual add $85

Pentium® II 400MMX $1,539.00

Pentium® II 300MMX $1,099

Pentium® II 333MMX $1,229

Pentium® II 350MMX $1,299

BEST BUY

	MB W/CPU	Basic System
• Pentium® 166MMX/512K	$159	$249
• Pentium® 200MMX/512K	$179	$269
• Pentium® 233MMX/512K	$199	$289
• AMD K6-233Mhz/512K	$159	$249
• Pentium® II 233Mhz/512K	$299	$429
• Pentium® II 266Mhz/512K	$359	$469
• Pentium® II 300Mhz/512K	$499	$599
• Pentium® II 333Mhz/512K	$619	$729

Basic System: CPU & M/B, 16MB, 1.44MB FDD, IDE 1/0, Mini Case w/230W PS, 104 Keyboard, 512K Pipeline Burst Cache, CPU Cooling Fan.

Monitor

Digiview

Digiview 17" 1707/1709D ..... $289/$429

Digiview 15" 1510/19" 1909 .. $179/$599

Sony

Sony 17" 200ES/200GS ..... $529/$629

NEC

NEC 15" A500/M500 ..... $259/$329

NEC 17" A700/M700 ..... $399/$599

Impression

Impression 7 Plus 17"/17" ..... $299/$429

Sale! Multimedia System MMX™ Technology

- ASUS SP97 Super TX Chipset MB
- 512K Pipelined Burst SDRAM Cache
- Intel Pentium® CPU w/ Cooling Fan
- 32MB 60ns Expandable to 256MB
- 1.44MB Floppy Drive
- 2.1 GB Ultra ATA Hard Drive (33MB/S)
- Built-in Graphic Engine SiS/4MB
- 24X EIDE CD ROM
- YAMAHA OPL3 16 Bit Stereo Card
- 33.6K Fax/Modem/Voice
- Mini Tower Case with 230W PS
- Windows 95 Enhanced Keyboard
- Microsoft Compatible Mouse
- Pair of 100W Multimedia Speakers
- Windows 95 CD/Manual add $85

Pentium® 166MMX $479.00

Pentium® 200MMX $499.00

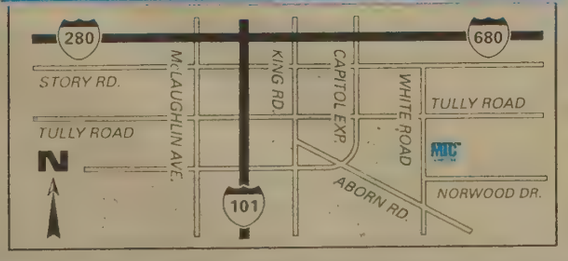
Pentium® 233MMX $529.00

AMD® K-6 233Mhz $489.00

COMPUTER UPGRADE / SERVICES AVAILABLE

ONE YEAR PARTS WARRANTY
LIFETIME LABOR ON SYSTEMS
WE OFFER EXCELLENT SERVICES AND TECHNICAL SUPPORT

STORE HOURS: 9:30AM - 7:00PM
SAT: 10:00 - 5:00PM • CLOSE SUNDAY



Novell Certified NetWare Engineer

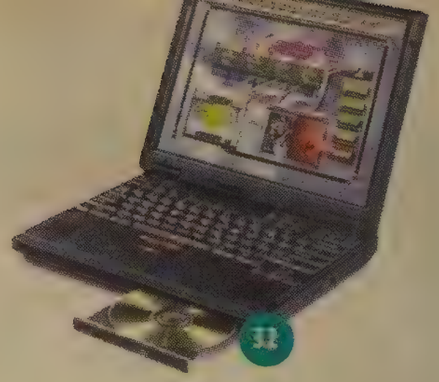
NETWORKING SERVICES

Novell
Windows NT
Hardware & Software Installation
Network Maintenance
Network Cabling
Service Contract Available

FREE ONSITE CONSULTING & QUOTES CALL FOR DETAILS!

MICROTIMES
June 17, 1998 • Issue #180

Digital Showbiz: Technology & The Entertainment Biz



digitalshowbiz

116 Scene Stealing At The Digital Corral
By Jonathan E.
What Do We Mean By "Digital" And "Showbiz"?—Alone And Together.

124 Digital Animation
By Herb Mendelsohn
Special Effects On Your Budget.

128 From Jobs To Memorabilia
By Jill Barnes
Web Sites For Movie Fans.

130 Wall Street Meets "Entertainment Tonight"
By David Kline
Today, Stocks. Tomorrow, Movies?

news&views

20 Industry Insights
By Paul Hoffman
Emerging Data Standard For Delivering Content 20
MicroTimes Stock Index 26

28 Letters

30 Guest Editorial: Taking On Microsoft
By Mitchell Kapor
High-Tech Hypocrisy About Government.

222 Dvorak's Last Column
By John C. Dvorak
The Evolution Of The Computer Joke.

businesssolutions

32 Mobile Computing
By Ed Kahn
Email And Scheduling On A Cell Phone.

42 Info Appliance
By Douglas J. Nakakihara
Motorola PageWriter 2000.

50 Telecommuting
By Robert Moskowitz
In Search Of The Productivity Dividend.

70 UNIX
By Bennett Falk
Lunix For PalmPilot.

86 32-Bit Computing
By Fabian Pascal
Assembly—Cases, Cables, And Other Parts.

94 Small Office/Home Office
By Birrell Walsh
Finding Useful Things Buried In Menus.

102 Accounting
By David A. Simon, CPA and Jennifer R. Cherniss
How-End Accounting Software For Windows 95/NT.

features

134 BMUG
By Peter Linde and Sam Penrose
Skepticism While Web Surfing; Plus Possible Futures For Computer Games.

138 Surf The Net, Go To Jail
By Dan Orzech
Owning A Modem Or Fax Machine In Burma Can Kill You.

onlineguide

142 Internet
By John S. Quarterman
What Your Netspeak Says About Your Online Life.

148 Online Services
By Bill Gram-Reefer
Telecommunications Reform: Two Years Later.

156 Alexa, I'm Glad I Met Ya...
By Kevin Savetz
Browser Add-On For Intelligent Web Surfing.

158 The Cable Guy
By Kevin Savetz
Rants (But Mostly Raves) About Life With A Cable Modem.

160 Web Page Listings

productspotlight

165 Updates & Announcements
Windows Software
Douglas Adam's Starship Titanic 164
MasterPhotos Studio 164
ID•pix 164
WinCentric Enterprise 165
ZipMagic 98 165
Books
Juno: FreeEmail And More 165
Linux Application Development 166
Macintosh Software
Layout Freeware 166
Xcluder 166
PC Hardware
SoundVision Awesome PCI Sound Card 166
Networking Hardware
WebShuttle 167
D-Link 10/100MB Network Kit In A Box 167
Snap! Server 167

168 Product Reviews
Book Reviews
Designing Campus Networks 168
Using Microsoft Word & Excel In Office 97 170
Windows Software Review
Zydeco for Quicken and TurboTax v4.1.1 170
Monitor Review
CyberVision C70 Monitor 171

multimedia&beyond

172 Gulch Gossip
By Jonathan E.

175 DEC's Bytes Of Art
By Tony Reveaux
An InterNetworked, Interactive Art Installation.

resources

178 Calendar Of Events
Kids Summer Computer Camp 178
Web '98 178
1998 CSPA Annual Conference 178

182 User Group/BBS Listings

191 Classifieds

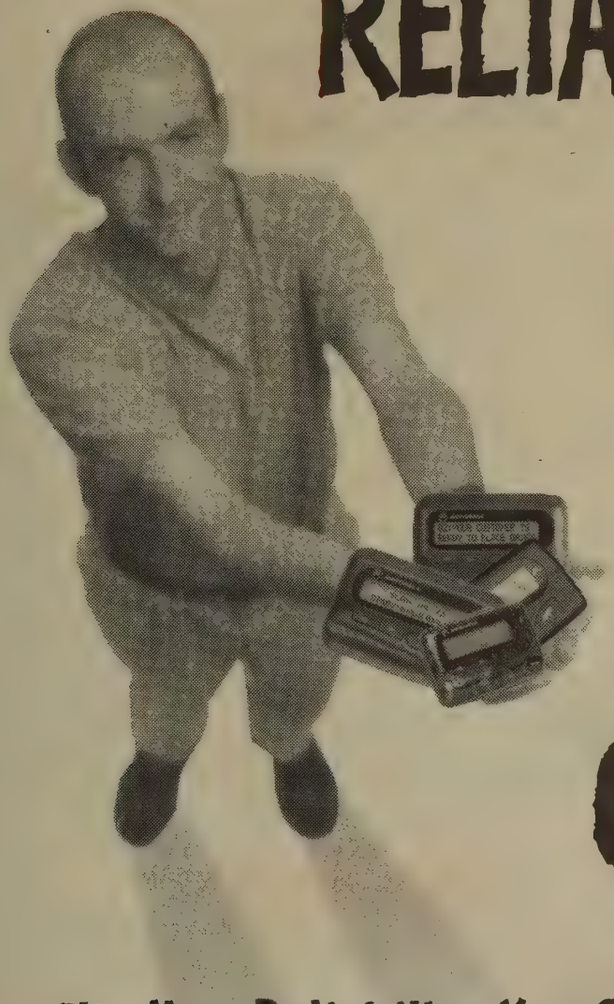
212 Index Of Advertisers

220 Index Of Advertisers By City

Reader Resources
Quotation Hotline Form 52
MicroTimes "Super Stop" Locations 184
Classified Advertising Placement Form 191
Classified Career Marketplace 209

ADSL and V.90 Available Now!

RELIABLE INTERNET.



OUR TECHS NEVER LEAVE WITHOUT ONE OF THESE.

Slip.Net: Reliability You Can Count On.

At Slip.Net we keep you connected with the largest network of modems nationwide and a dedicated technical staff that keeps it all going. We continuously test over 152 different aspects of our service and immediately jump on any problem, and yes, a tech gets paged no matter what time of the day or night.

Slip.Net has all the services you need. Like V.90, X2 and K56Flex modems (56K), 50mb of WEB storage, dedicated IP addresses, Front Page support, online back-ups, Shell access, full CGI capabilities and most important of all, your own Domain name.

Get Connected for only: 19.95 per month*

Call us today to find out more about the services we provide. A topnotch sales representative will explain it all. **Switch** from your current ISP now and **save $30.**

* Plus a one-time $30 start-up fee.

SLIP.NET

We're On It.

www.slip.net

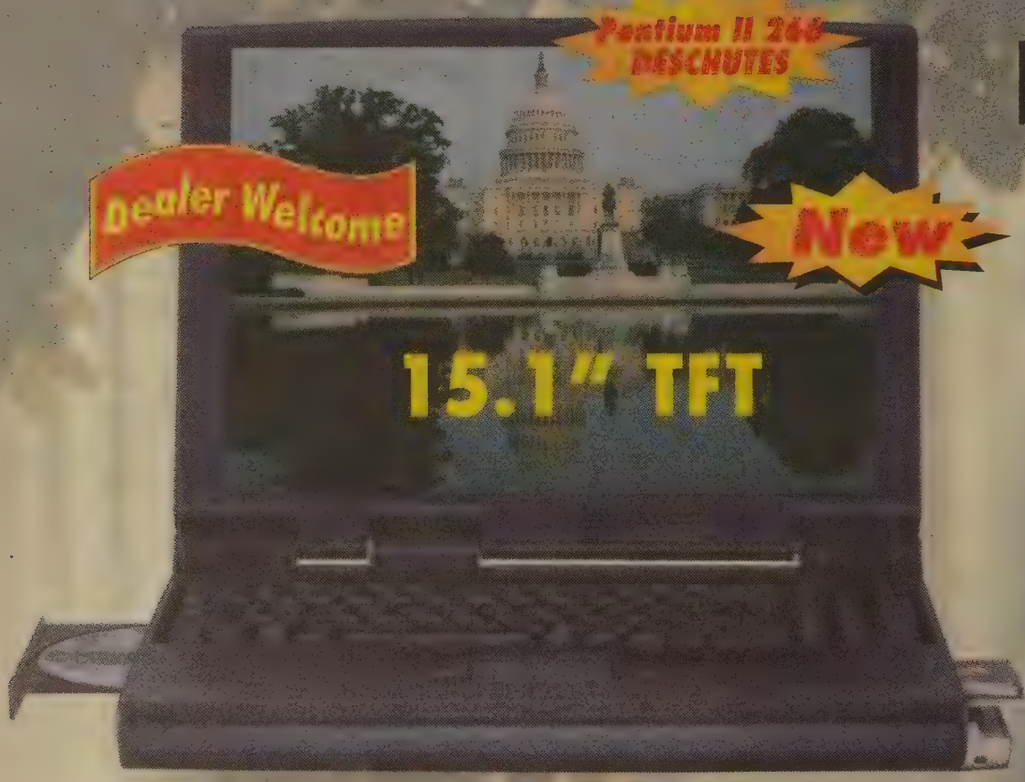
Sign up online at: **www.slip.net** or call:
San Francisco: **415.281.4447**, South Bay: **408.538.0150**,
East Bay: **510.763.7547**, all other areas: **800.754.7638**

Slip.Net Explorer software available at these locations: CompUSA All locations · Micro Center Santa Clara · Computer City All locations · CompuTown All locations · T Zone All locations

V.90 · K56 FLEX · U.S. Robotics X2 TECHNOLOGY SUPPORTED

Multimedia Notebook

RIXBOOK proudly introduces the world's first 15.1" TFT LCD Notebook...

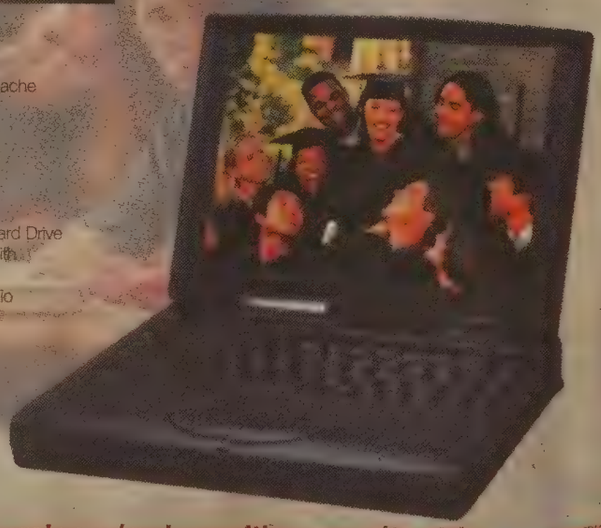


RIX 8-Series

- 15.1" 1024 x 768 XGA TFT LCD
- 102-Key Keyboard with Numeric Keypad
- 512KB L2 Pipeline-Burst Cache
- 64-bit 3D 4MB SGRAM Graphic Accelerator
- Intel Pentium® Processor with MMX Technology
- 3.5" 1.44 MN FDD Exchangeable with Optional LS-120, Iomega Zip Drive, or 2nd HDD
- 20 x CD-ROM Drive Exchangeable with Optional MO Drive
- 3D Surround Sound with 1MB Hardware Wavetable
- 2 Stereo Speakers & 1 Microphone
- Built-in Touchpad Pointing Device
- 2 Type II or 1 Type III PCMCIA Slot Support ZV Port & Card Bus
- 75.6 W Lithium-Ion Battery
- 1 Video-in Jack supports Video Capture
- Ports: 2 USB, 1S, 1P, TV-out, Ext. Keyboard, Ext. CRT and FIR Infrared

RIX 6-Series

- Intel Pentium® CPU (100 – 233MMX Technology)
- DRAM Expandable to 128MB EDO
- 512KB Synchronous Second Level Cache
- 12.1" SVGA TFT LCD
- 64-Bit PCI bus Video with Graphics Accelerators
- 2MB Video Display Memory
- 2 Type II PCMCIA slots
- Built-in 20 x CD-ROM Drive
- Removable 2.5" PCI Local Bus IDE Hard Drive
- Removable 3.5" F.D.D. Interchange with 2nd Battery
- 16-Bit Sound Blaster Compatible Audio IrDA and FIR, Data Transfer Rate up to 4M bits
- Built-in TrackPad
- Li-Ion Battery or NiMM Battery
- 3D Sound, Full Duplex



Special

- All-in-One RIXBook 6100
- 12.1" Active Matrix
- 233MMX
- 32MB EDO RAM Drive
- 2.1 HDD
- 20 x CD-ROM
- 1.44 Floppy Drive
- AC Adapter
- Carrying Case
- 33.6 PCMCIA Fax Modem
- NiMH Battery
- Windows95 - Including CD*

1395**

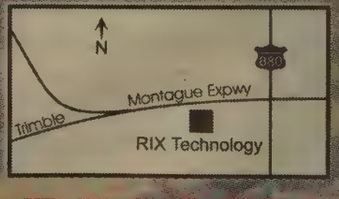
MMX™ pentium

MICROSOFT WINDOWS 95

* **Microsoft OSR 2.5 version w/real-sensitive security strip.**

** **Special price for education institution (student OK!), government agency & non-profit organizations.**

Evaluation Welcome



RIX Technology, Inc.

780 Montague Expressway, Suite 306, San Jose, CA 95131
Tel: (408)953-0788 Fax: (408)953-0799 hptt://www.rixbook.com

OFFICE HOUR
Mon-Fri: 9:00am-6:00pm
Sat: 9:00am-12:00pm
(By appointment)

1-800-RIX-0788

RIX TECHNOLOGY, INC. All right reserved. all company and/or product names mentioned herein are trademarks and/or registered trademarks of their respective companies. Price and specification are subject to change without notice. Not responsible for typographic errors.

CORPORATE PO'S WELCOME!

Systems Super Sale!

www.kingstarusa.com

P-II 440LX SYSTEM

- P-II 233-333 Motherboard
- Intel AL440LX Chipset
- AGP Overview
- 32MB SDRAM
- 1.44MB Floppy Drive
- 4MB SVGA Card W/AGP
- ATX Mid Tower Case w/250W PS/2 Fan
- Win 95 Keyboard/PS/2

Pentium® II 233MHz MMX $459

Pentium® II 266MHz MMX 499
Pentium® II 300MHz MMX 629
Pentium® II 333MHz MMX 815

INTEL PENTIUM II SERVER SYSTEM

- Intel Atlanta Motherboard w/512K L2 Cache
- Intel 82440LX Chipset w/AGP
- 32MB EDO SDRAM to 1024MB
- 4.3GB Ultra DMA IDE HD
- Intel PCI Card 10/100BT Ether Card
- 1.44MB Floppy Drive
- 4MB VGA Card
- High Quality ATX Med. Tower Case w/250W PS
- 24X CD-ROM Toshiba
- 104-Key PS/2 Enhanced Keyboard
- Includes Windows NT 4.0 for Workstation

Pentium® II 233MHz MMX $919

Pentium® II 266MHz MMX $969
Pentium® II 300MHz MMX 1111
Pentium® II 333MHz MMX 1211

OFFICE SYSTEM SPECIAL

- Intel Atlanta Motherboard Pentium®II
- Intel AL440LX Chipset
- AGP Overview
- Intel Pentium® II Processor
- 32MB SDRAM to 1024MB
- 3.2GB Hard Drive Ultra DMA
- 1.44MB Floppy Drive
- 24X CD-ROM Toshiba
- 4MB SVGA Card w/ AGP
- Yamaha Sound Card
- ATX Mid Tower Case 250W UL PS
- Win 95 Keyboard/PS2
- Microsoft Mouse
- Windows 95 CD

Pentium® II 233MHz MMX $899

Pentium® 266MHz MMX $880
Pentium® 300MHz MMX 999
Pentium® 333MHz MMX 1129

PII 233/400MHz SYSTEM

- Intel 440BX Chips (first line of system)
- PII Processor Support Highest System 233 to 400MHz
- 8244BX AGPset Supports both 66 and 100 MHz
- 64 MB SDRAM to 1024MB
- Universal Serial Bus (USB)
- 8 MB AGP Expert@work98
- 1.44 MB Floppy Drive
- ATX Mid Tower Case w/ Fan
- Win95 Keyboard/PS/2

Pentium® II 233MHz $654

Pentium® II 266/300MHz MMX $699/799
Pentium® II 333MHz MMX 959
Pentium® II 350/400MHz MMX 1040/1279

SMALL OFFICE/HOME MULTIMEDIA

- Pentium Motherboard w/512K Pipeline Burst Cache
- 16MB EDO RAM 60ns
- 1.7GB Hard Drive Ultra DMA
- 1.44MB Floppy Drive
- PCI 64-Bit Video Card w/1MB (to 2MB)
- Mini Tower 230W PS
- 104-Key Win 95 Keyboard
- 3 Button Mouse
- 14" .28dp, SVGA Monitor
- 20X IDE CD-ROM
- Yamaha 16-Bit Sound Card
- 80 Watt Stereo Speakers
- 33.6 Fax Modem w/voice
- Windows 95
- Microphone FREE

Intel 166MMX $699

Intel® 200/233 MMX $710/740
AMD K6-200/233 ..... 699/710
AMD K6-266/300 ..... 759/799

PENTIUM SYSTEMS SPECIAL

- Intel Pentium® CPU w/Ball Bearing Fan
- 512K Pipeline Cache on Board
- 16 MB up to 256 MB 72-Pin EDO
- SVGA Card 1 MB (up to 2 MB)
- 1.44 MB Floppy Drive
- PCI Controller w/I/O w/16550
- 1.7GB Hard Drive Ultra DMA
- 104 Win 95 Keyboard
- Mini Tower Case
- 230 Watt Power Supply

Intel 166MMX $389

Pentium® 200MMX $399
Pentium® 233MMX 410
AMD K6-200MMX 389
AMD K6-233MMX 399

PENTIUM WORKSTATION

- Intel MMX Pentium® Processor
- Fast IDE w/16550
- 512K Pipeline Cache
- 32MB EDO 60ns RAM
- 2.6GB EIDE Hard Drive
- 1.44MB Floppy Drive
- 24X EIDE CD-ROM
- 64-Bit SVGA Video Card/ 1MB
- 80-Watt Speakers w/AC Adapter
- Mini Tower Case w/230 PS
- 104-Key Keytronics
- Genius Net Serial Mouse
- Microsoft Windows 95
- 32-Bit Network Card

Pentium® II 166MMX $559

Pentium® 200MHz MMX $575
Pentium® 233MMX 615
AMD K6-200MHz 555
AMD K6-233MMX 575

PENTIUM II ASUS SYSTEM

- ASUS P2L97 Motherboard
- Intel AL440LX Chipset
- AGP Overview
- Intel Pentium II 233 to 333MHz
- 32MB SDRAM
- 3.2GB Hard Drive Ultra DMA
- 1.44MB Floppy Drive
- 24X CD-ROM
- 4MB SVGA Card w/AGP
- 56.6 Fax/Modem w/voice
- ATX Mid Tower Case w/250W UL PS
- Win95 Keyboard/PS2
- Genius PS/2 Mouse
- Windows 95 CD

Pentium® II 233MMX $840

Pentium® 266MHz $888
Pentium® 300MHz 1010
Pentium® 333MHz 1110

MAINBOARDS

Intel N440BX Server Board	$590
Intel SE 440BXPA PII	$210
P-II Intel 440LX/AGP	$109
Intel Atlanta 440LX Board	$155
Intel Atlanta 440LX Board/SD	$170
Dakota Dual 440LXA	$469
WorkTX Pro LLLW/512k Sound	
MMX/AMD/CYRIX Cpu	$69
Triton TX 512K	$75
ABIT LT6 PII ATX 440LX	$129
PS/512K 75-233MHz	$65
ASUS Pentium® II P2L97 AGP	$139
ASUS TX97E or XE	$128
Tyan P-II S1832DL	$269
Tyan PS S1523	$110
Tyan Dual S1692DL	$259
Super Micro P5 MS98	$125
Super Micro P6 DLS Dual	$345

MEMORY / CPUs

Intel Pentium® II 233 MHz	$185
Intel Pentium® II 266 MHz	$239
Intel Pentium® II 300 MHz	$365
AMD K6 MMX 233/200	$80/70
8/16/32MB EDO 60ns	$17/20/35
32/64/128 SDRAM 168 Pins	$35/79/159

SVGA CARDS

Intel 740 3D 8MB AGP	$85
STEALTH 3D 2000 Pro/2MB	$49
MONSTER 3D II 8MB PCI	$215
VIPER V330 4MB PCI or AGP	$89
FIRE GL 1000 PRO 8MB AGP	$175
STEALTH 3D 4000	$69
XPERT@WORK (pc3tv)8/MB	$115
XPERT@WORK (pc2tv)8/MB	$79
Millenium II 4MB AGP	$119
Mystique 220 4MB AGP	$99
G100A 8MB SGRAM AGP	$79
SVGA 1 MB to 2MB PCI 64 Bit	$25
Trident 4MB PCI or AGP	$49

NETWORK CARDS

NE2000 PnP Novell Certify PCI	$14
Intel Express Pro 100 BT	$48
3Com 509TP ISA	$49
3Com 905TX PCI	$65
3Com 100Base TX Switch	
24 port	$2650
Intel EE110TX 24 port	$1175
Fast 16-Port 100TX	$585
Ethernet 5-Port Hub 10BT	$45
Ethernet 8-Port Hub 10BT	$59

HARD DISK DRIVES

2.0GB IDE	$129
3.5GB IDE	$139
4GB IDE	$159
6.4GB IDE	$199
8.4GB IDE	$299
4.3GB Ultra Wide SCSI	$279
9.1GB Ultra Wide SCSI	$640
1.44 Floppy	$17
LX 120 Floppy	$99

CONTROLLERS

Adaptec 2940 SCSI	$139
Adaptec 2940 Ultra SCSI	$179
Adaptec 2940 Ultra Wide SCSI	$189
Zip 100/ATAP/SCSI	$110
Zip 100/ATAP IDE	$99

CD DRIVES

32X SCSI NEC	$119
24X SCSI NEC	$99
DVD Tosh/MPEG w/Virge DX	$285
24X IDE	$49
32X IDE	$59
60W/240W Speakers	$10/25
Yamaha M7/M15	$39/65
860W Sub P.M.P.	$55

FAX MODEMS

33.6 w/Voice Int	$36
56.6 w/Voice Int	$65
USRobotics 56K Voice Int	$99
PCMCIA 33.6 Fax Modem	$79
PCMCIA 56.6 Fax	$99
US Robotics 56K ver. V.90	$115

SOUND CARDS

Yamaha Sound Card 3D	$17
ESS 3D 16 Bit IDE	$19
SoundBlaster 16 Bit PnP	$39
Creative Labs AWE 64	$69
Creative Labs AWE 64 Gold	$119

SOFTWARE

MS Windows 95 CD Full w/Sys	$80
MS Office Pro 97 CD w/Sys	CALL
MS NT Server/W.S. 4.0 or 5.0	CALL

MONITORS

14" Impression	$129
15" Impression	$149
17" Impression	$269
NEC A700	$465
ViewSonic G771	$379
Sony 17" Impression MX	$369
21" ViewSonic .26dp G790	$699
20" NEC Flat Panel	$5650
19" V95	$670
19" Hitachi .25	$820

CASES

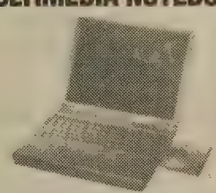
Mini Tower/Desktop w/230W PS	$24/35
Mid Tower w/230W PS	$28
Full Tower Case w/250W	$55
ATX Desktop Case/235W	$69
ATX Mid Tower Case/235W	$55
ATX Full Tower Case/300W	$115

KEYBOARD & MOUSE

Keytronic/Mitsumi 104 Key	$17/13
MS Natural Keyboard	$39
MS PS/2 Mouse (w/Sys)	$25
MS Serial Mouse (w/Sys)	$25
MS Intelli (w/Sys)	$25
Genius Net Mouse or PS/2	$10

We Also Carry These Brand Name Notebooks:

MULTIMEDIA NOTEBOOKS



TOSHIBA
HITACHI
FUJITSU
CHEM USA
EVEREX

Call for Latest Prices!

DIAMOND NEC ViewSonic ATi matrox SONY ASUS intel OMEGA 3Com

KINGSTAR COMPUTERS, INC.

Expert Sales, Service & Upgrades

Since 1986

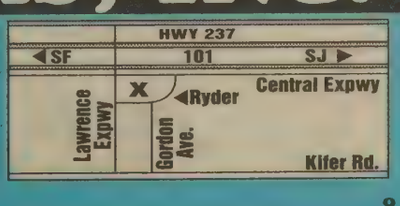
MON-FRI 8:30-6:00

Sat/Sun by Appt.

SANTA CLARA

3081 Lawrence Expwy • Santa Clara CA 95051

TEL: (408) 736-8590 • FAX: (408) 736-4151



Prices and Company Policy Subject to Change W/O Notice. Not Responsible for Typographic Errors. Prices Reflect Cash Price Only.

King Star Computer http://www.kingstarUSA.com

MICROTIMES
June 17, 1998 • Issue #180

Contributors

John C. Dvorak

Jonathan E.

Bennett Falk

Paul Hoffman

Matthew Leeds

Herb Mendelsohn

Jill Barnes is a freelance writer in Southern California who can be contacted at *jillbn@msn.com* or *104047.2575@compuserve.com*, or check out her Web site at *http://ourworld.compuserve.com/homepages/jabarnes*.

Jennifer R. Cherniss specializes in making boring technical information seem less so. You may complain to her at (510)893-5753.

John C. Dvorak (*www.dvorak.org*) writes many columns, hosts the "Software/Hardtalk" radio show, and finds inspiration in strange places.

Jonathan E. has worked with desktop multimedia since 1988. His USPS mailing address is c/o SoundSwell, 54 29th St., Richmond, CA 94804. His email address is *jeve@well.com*.

Bennett Falk works for Cloudscape, an Oakland-based Internet startup.

Bill Gram-Reefer, based in Concord, CA, is president of WORLDVIEW, specializing in connectivity and communications. He has been writing about Macintosh computers since 1984.

Paul Hoffman (*phoffman@imc.org*) is the Director of the Internet Mail Consortium.

Ed Kahn (*edkahn@well.com*) is a folklorist who maintains a strong interest in computers and lives in the East Bay.

Mitchell Kapor, the founder of Lotus Development Corporation, is an investor in high-tech startups.

David Kline (*dkline@well.com*) is an author, business consultant and commentator for "Marketplace" on National Public Radio. His book, *Road Warriors: Dreams and Nightmares Along the Information Highway* (Plume, 1996), which he co-wrote with Daniel Burstein, is available in paperback.

Matthew Leeds is a networking czar at Brøderbund.

Peter Linde is currently serving his fourth year as a member of BMUG's Board of Directors. He is the CEO of his own Mac and PC consulting company based in the San Francisco Bay Area. He is oh-so-very happy to receive correspondence at *pbl@lindegroup.com*.

Herb Mendelsohn (*herbavour@earthlink.net*) is an actor-screenwriter-producer living in Los Angeles.

Robert Moskowitz (*RMoskowitz@aol.com*) is a consultant based in Woodland Hills.

Douglas J. Nakakihara is the products documentation manager for NewTek, Inc. He also dabbles in 3D animation and writes for various publications. He can be reached at *doug_nakakihara@newtek.com*.

Fabian Pascal is an independent industry analyst, consultant, and author specializing in database management. Author of two books and a CBT course, he has contributed extensively to many industry publications, including *Database Programming and Design*, *DBMS*, *DataBased Advisor*, *Byte*, *Computerworld*, and *Infoworld*.

Dan Orzech is a Philadelphia, PA-based writer covering technology. His work has appeared in the *Los Angeles Times*, the *Philadelphia Inquirer* and many computer industry publications.

Sam Penrose is a longtime BMUG volunteer and the author of BMUG's "Which Mac Should I Buy?", a practical guide to selecting your next Mac.

John S. Quarterman (*jsq@mids.org*) is the senior technical partner of MIDS (Matrix Information and Directory Services) and editor of *Matrix News*. He is a longtime observer, consultant, and writer on the matrix of electronic networks.

Tony Reveaux is a San Francisco-based consultant/writer who writes the "MediaScan" column in *Film/Tape World*. He can be reached via the Internet at *tonyr@dnai.com*.

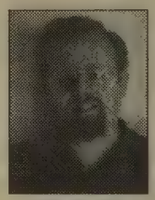
Kevin Savetz (*savetz@northcoast.com*) is author of *MBONE: Multicasting Tomorrow's Internet*, published by IDG books and waiting patiently on a bookshelf near you.

David A. Simon, CPA (M.S., Taxation) has a tax and accounting practice in Oakland, and is co-author of *Business Contracts: Forms and Tax Analysis* (Wiley Law Publications). His clients include professionals and businesses throughout the state. He can be reached at (510)893-5753 or *dsimon@pacbell.net*.

Birrell Walsh (*birrell@well.com*) is a contributing editor for *MicroTimes* and a freelance writer for *BYTE* and other magazines.

Robert Moskowitz

Douglas J. Nakakihara


Fabian Pascal

Tony Reveaux

Kevin Savetz

Birrell Walsh

Send Letters to the Editor:
US Mail:
Letters
MicroTimes
1300 Clay St., Ste. 820
Oakland, CA 94612
Fax: (510)768-1288
Internet: *editors@microtimes.com*

WE ARE INTEL AUTHORIZED DEALER

FREE LABOR FOR CPU/ MEMORYUPGRADE!

SUPER SALE! WE BEAT PRICES!

No Confidential!

100MHz CPU Bus Speed Motherboard "Gainward" 5VPA Motherboard: Priced Only $85

- Intel Pentium® + AMD K6-300MHz + CYRIX MzMX300MMX CPU best Solution
- 100MHz CPU Bus Speed + AGP port support • 384MB Memory Support

AMD K6-300/266/233/200MMX or Cyrix MIMX 300/266/233/200MMX

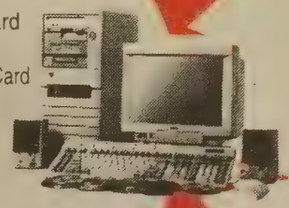
- "Gainward" 5VPA Motherboard
- 100MHz CPU bus Speed
- 32MB Memory SDRAM 10ns (upgradable to 384MB)
- Diamond Stealth 3D 4000 AGP 2MB SVGA Card
- 512K Cache
- 1.44MB Floppy Drive
- 24X Speed Drive
- Mini Tower Case + 250W Power Supply
- 104 Enhanced Keyboard
- Logitec Mouse and Pad PS2
- 3.2GB Hard Drive

Best Buy

AMD $543/503/478/468
Cyrix $525/497/467/459

Service Since 1991

Intel Pentium® II 233/266/300/333/350/400MHz MMX System



- Intel 440LXor BX chipset MOtherboard
- 32MB SDRAM 168-Pin
- Diamond Stealth 3D AGP 4000 2MB SVGA Card
- 512K Cache
- 1.44MB Floppy Drive
- 24X Speed CD-ROM Drive
- MED Tower Case ATX
- 104 Enhanced Keyboard
- Logitec PS2 Mouse and Pad
- 3.2GB Hard Drive

$643/699/835/953/1070/1323

- PC Repair & Upgrades Welcome
- Custom Configuration Available
- PC Components Available
- We Beat Prices
- Please Call Us For Current Prices!
- Corporate Accounts Welcome

MULTIMEDIA UPGRADE

- 16-Sound Card
- Speakers 100W & Cable
- Driver Disk • 4 CD Titles

Free Labor

12X CD-ROM Package	$88
24X CD-ROM Package	$105
32X CD-ROM Pachage	$134

COMPUTER UPGRADE

- Green (Energy Saving) Motherboard w/ 512K Pipeline Burst Cache
- Install/Labor
- Complete System Checkout

Free Labor

P5-166	$165
P5-200	$165
P6-200MMX	$165
P6-233MMX	$190
P6-266MMX	$285
P6-300MMX	$385

AMD K6-266/233/200MMX OR CYRIX M2MX 266/233/200 MMX SYSTEM

- ASUS-TX 97E Motherboard
- 66MHz CPU bus speed
- 32MB Memory (upgradable to 256MB)
- Diamond Stealth 2000 PCI 3D 2MB SVGA Card
- 512K Cache
- 3.2GB Hard Drive • 1.44MB Floppy Drive
- 24X Speed CD-ROM Drive
- Mini-Tower Case + Power Supply
- 104 Enhanced Keyboard
- Logictec PS2 Mouse and Pad

AMD $527/502/492
CYRIX $521/491/483

SUPER SERVER

- Dual Intel Pentium II 333MHz MMX (one CPU)
- 512K Cache
- 128MB Memory SDRAM
- 4.3GB Hard Drive (Two pieces) SCSI Ultra Wide
- 24X CD-ROM Drive
- 1.44MB Floppy Drive
- ATX Full Tower Case w/300W Power Supply
- 3COM 3C905 10/100 TX PCI Network Card
- 2MB SVGA Card PCI
- Microsoft Windows NT 4.0 Server w/10 Clients
- 8 Port 100TX Hub ..... Add $
- UPS Power Protect ..... Add $
- HP DAT C1536 4mm 4GB SCSI Internal Backup System ..... Add $579
- Logitec Mouse & Keyboard

$2467

SYSTEM WITH MULTIMEDIA

- P5-166/200/P6-200 233/266/300MMX
- Motherboard PCI+ISA+512K Cache
- 16MB Memory EDO Memory
- 2GB Hard Drive
- 1.44MB Floppy Drive - Teac or Sony
- SVGA 64-Bit 4MB Video
- 12X CD-ROM
- Sound Blaster 16 Compatible 3D Sound
- Mini-Tower Case + 250 W Power Supply
- 104 Enhanced Keyboard
- Mouse and Pad
- 4-CD Titles

$379/379/379/386/483/511

HEAVY DUTY SERVER

- Intel Pentium II 266MHz MMX CPU
- 512K Cache
- 64MB Memory SDRAM
- 4.3GB Ultra Wide SCSI-3 Hard Drive
- 24X CD-ROM Drive
- 1.44MB Floppy Drive
- 2MB SVGA Card PCI
- 3COM 3C905 10/100 TX PCI Network Card
- 2MB SVGA Card PCI
- Microsoft Windows NT 4.0 Server w/5 Clients
- 8 Port 100TX Hub ..... Add $
- UPS Power Protect ..... Add $
- Logitec Mouse & Keyboard

$1677

NETWORK SETUP, INSTALLATION & ON-SITE SERVICE AVAILABLE CUSTOMIZED CONFIGUREATIONS AVAILABLE

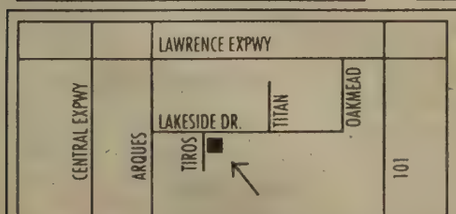
DVD MULTIMEDIA SYSTEMS

- 64MB RAM (128MB: add $Call)
- 6.4GB EIDE (8.4GB: Add $130)
- 2X DVD ROM
- US Robotics 56.6 Fax/Modem (Internet-Ready)
- Matrox Millenium II 8MB AGP or PCI
- Sound Blaster AWE 64 Value or Yamaha Sound
- Yamaha Speakers or 400W Deluxe Speakers
- Teac or Sony 1.44 3.5" Floppy Drive
- Med Tower ATX Case w/Power Supply
- Keytronics Keyboard for Windows95
- Microsoft Mouse w/Pad
- Free Microsoft Windows 95 • Free 4-CD Titles

Intel Pentium 400	$2105
Intel Pentium II 350 [illegible] ATX	$1882
Intel Pentium II 333 ATX	$1731
Intel Pentium II 300 ATX	$1590
Intel Pentium II 266 ATX	$1462
Intel Pentium II 233 ATX	$1416
Intel Pentium 233MMX	$1268
Intel Pentium 200MMX	$1243
Intel Pentium 166MMX	$1238

About Legend Computer Inc.

Legend Computer inc. is specialized in the state-of-the-art technology of Networking, computing & parts supply. It has been serving customers like US Navy, US Defense, Labs, Banks, Schools, University, Fortune 500 companies nationwide for over Seven years. Call us today.



LEGEND COMPUTER Inc.

Tel. (408) 720-0818 U.S.A.

Fax (408) 720-0819
1225 Tiros Way
Sunnyvale, CA 94086
Business Hours:
M-F 9:30am-6pm: Sat.10am-4pm

EMail:
LegendComp.AOL.COM

TERMS & CONDITIONS

1. Lifetime Labor warranty system & one year parts warranty
2. Knowledgeable technical support engineers in service
3. Prices and availability subject to change w/o notice
4. Shipping, insurance and COD charges are extra and nonrefundable. Prices reflect cash discounts
5. Return shipping must be insured, prepaid and bearing an RMA# on the shipping label
6. Defective items replaced or repaired at our discretion
7. Not responsible for typos
8. All returns subject to 15% restocking fee and cover only Legend brand computer; excludes peripherals and software. No refunds after 30 days
9. Superior reputation for service, quality and value
10. Purchase orders are welcomed and subject to approval

* With system Purchase. Limit one piece per system purchase

BEST SERVICE AND BEST QUALITY ARE WHAT MADE BESQ #1

The Best Notebooks On Sale

Active Color At Dual Scan Price

Lowest Price Guaranteed

Bright Crisp Light

Only $1329

While supply last

- Intel 200MHz Pentium Processsor w/ MMX
- 32MB EDO RAM, 256K Burst Cache
- 12.1" TFT Active Color LCD Screen
- SVGA 800x600 16M Colors
- 64-bit Video 2MB EDO Memory
- Built-in 20x CD-ROM, 1.44MB Floppy
- Built-in 2.1GB Hard Drive
- 16-bit Full Duplex 3D Stereo Sound System
- Windows 95 Keyboard & Trackpad
- 2 Type II or 1 Type III PCMCIA Slots
- Supports CardBus & Zoom Video Port
- Multi I/O Ports including USB
- NiMH Battery, Carrying Bag & Power Adapter
- One Year Parts and Three Years Labor Warranty

Pentium 233MHz w/ MMX Only $1349

14.2" TFT Active Color On Sale

Call for All Chem USA Models

- Intel 200MHz Pentium Processsor w/ MMX
- 32MB SDRAM, 512K Burst Cache
- 14.2" TFT Active Mitsubishi LCD Screen
- XGA 1024X768 64K Colors
- 64-bit GUI Accelerator 4MB EDO Video RAM
- Removable 2.1GB HDD & 1.44MB Floppy
- Optional 20x CD-ROM Drive
- 16-bit Full Duplex Stereo Sound System
- Hardware WaveTable
- Full Size Windows 95 Keyboard & PS/2 Trackpad
- 2 Type II or 1 Type III PCMCIA Slots
- Supports CardBus & Zoom Video Port
- Multi I/O Including USB & Docking Ports
- Li-Ion Battery, Carrying Bag
- One Year Parts and Three Years Labor Warranty

Pentium 233MMX Only $1929

Wow

Pentium II 266MHz & Tillamook 266MHz Available
Call For Models Not Listed

Only $1899

Business Lease $78/Mo

Toshiba Tecra 550CDT On Sale

Call for Toshiba, IBM, Compaq Notebooks!

- 266MHz Pentium Processsor w/ MMX
- 32MB EDO RAM, (Exp. to 160MB)
- 3.82GB HDD/ 1.44MB FDD
- 20x CD-ROM
- 56K Voice/ Data/ Fax Modem
- 12.1" TFT Active Matrix Color
- 1024 x 768 High Resolution Display
- Three Years Warranty

BEST PRICE

Only $3699

Business Lease $134/Mo

BESQ SYSTEMS

Tel: 408-942-6165

Corporate, Government & Education PO's Welcome

Business Financing Available

ABOUT BESQ SYSTEMS

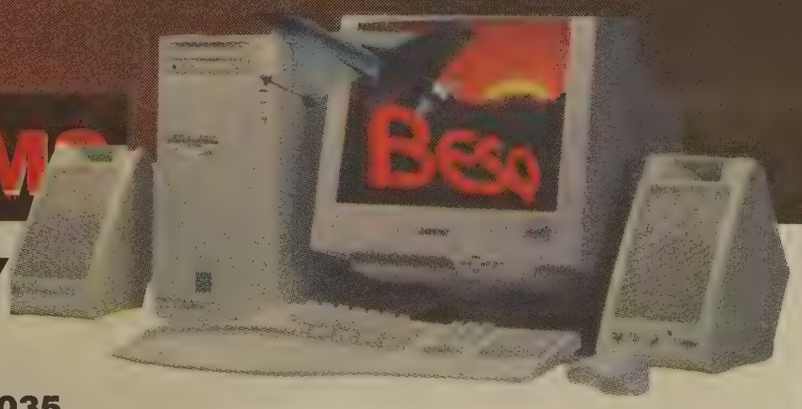
BESQ SYSTEMS is specialized in the state-of-the-art technology of networking & computing. It has been serving customers like US Navy, Lawrence Livermore National Labs, Bank of America, Stanford University, Fortune 500 companies nationwide for over five years. Call us today!

BUSINESS HOURS

M-F: 8:00am-5:00pm
SAT: 10:30am-4:30pm

VISA MasterCard

BESQ SYSTEMS



1-800-345-2377

Fax: 408-942-6160

511 Montague Expressway, Milpitas, CA 95035

Cupertino Sales Office Tel: (408)996-2469 Fax: (408)996-9062

PII400BX PowerStation

Best Business Station

- Intel Pentium II 400MHz Processor w/ MMX
- Intel SE440BX Motherboard 100MHz Bus w/ AGP
- Integrated 512K ECC L2 Cache
- 64MB SDRAM Memory 100MHz (384MB Max.)
- 8.4GB Ultra DMA Hard Drive/ 1.44MB Floppy
- ATI Xpert@Work 8MB Rage Pro AGP Video
- Creative DVD 20x 2 Kit MPEG-2
- HP C7200i CD ReWritable Drive
- ATX Tower Case w/ 235W UL Power Supply
- 104 PS/2 Keyboard/ Microsoft Intellimouse
- MS Windows 95/ Norton AntiVirus
- USB Video Conference Digital Camera Kit add $129
- 20" Viewsonic G800 1600X1280 Monitor add $919
- FREE BUSINESS FIRST Service Package

$2469 400MHz

Business Lease: $89/ Mo

PII233M PowerMachine

- Intel Pentium II 233MHz Processor w/ MMX
- Intel 440LX Chip Motherboard w/ AGP
- Integrated 512K ECC L2 Cache
- 32MB SDRAM Memory 10ns(64MB add $45)
- 3.2GB Ultra DMA Hard Drive(4.3GB add $30)
- 4MB SGRAM AGP Video Accelerator
- 24X CD ROM/ 1.44MB Floppy Drive
- 16-bit 3D Sound System/ 60W Speakers
- ATX Tower Case w/ 235W UL Power Supply
- 104 PS/2 Keyboard/ Logitech Mouse/ Windows 95
- FREE WordPerfect Suite 8.0
- FREE Mcafee Anti Virus Software
- Free 15" .28 NI Monitor w/ Digital Control

Free Monitor

$969

Call for Business Financing

K6 300II PowerMachine

Sale

- AMD K6-233 CPU w/ MMX
- Intel 430TX Chip Motherboard
- 512K Pipelined L2 Cache
- 32MB EDO RAM (256MB Max.)
- 2.1GB EIDE Hard Drive
- 24X CD-ROM/ 1.44MB Floppy Drive
- 2MB PCI SVGA Video
- 16-bit 3D Sound/ 60W Stereo Speakers
- Mini Tower Case w/ 230W Power Supply
- 104 PS/2 Keyboard/ Logitech PS/2 Mouse
- MS Windows95 Installed w/ Software CD
- Free Software CD Pack

Free Software

$569

Wow

Pentium II 350MHz	$2239	Pentium II 266MHz	$1029	K6-266MHz	$599
Pentium II 333MHz	$2129	Pentium II 300MHz	$1139	K6-300MHz	$649

GS266S GroupServer

- Intel Pentium II 266MHz Processor w/ MMX
- Expandable to Dual Pentium II CPU's
- ASUS P2L97-DS Dual Pentium II Motherboard
- Integrated 512K ECC L2 Cache
- Integrated Adaptec 7880 U/W SCSI Controller
- 64MB SDRAM Memory 10ns (512MB Max.)
- 4.3GB Ultra/ Wide SCSI-3 Hard Drives 8.5ms
- 24X CD ROM/ 1.44MB Floppy Drive
- 3Com 3C905B 10/ 100TX PCI NIC
- 2MB PCI SVGA Video Adapter
- ATX Tower Case w/ 235W UL Power Supply
- MS Windows NT 4.0 Server w/ 5 Client
- HP T41 4GB SCSI Tjape Backup System add $385
- 3Com Office Connect 8 Port 100BTX Hub add $367
- APC Smart-UPS add $389
- FREE BUSINESS FIRST Silver Level Service

$1999

Business lease: $72/ Mo

Call for Customized Configurations

Best Value Server

PS2300 Enterprise Server

- Dual Intel Pentium II 333MHz Processors
- Intel R440LX Dual Pentium II Motherboard
- Integrated 512K ECC L2 Caches Per Processor
- 128 MB ECC SDRAM Memory 10ns(512MB Max.)
- THREE 4.3GB Ultra/ Wide SCSI-3 Hard Drives 8.5ms
- Adaptec AAA-131 Ultra/ Wide SCSI RAID Controller
- Integrated Adaptec 7880 Ultra/ Wide SCSI-3 Controller
- 24X CD-ROM/ 1.44 Floppy Drive
- Integrated Intel EtherExpress Pro/ 100Base TX NIC
- Integrated Cirrus Logic 5446 1MB Video RAM
- Server Class Tower w/ Dual Redundant 300W Power
- MS Windows NT 4.0 Server w/ 5 Client
- Intel LanDesk Server Manager Software
- HP C1599 4mm DAT 8GB SCSI Tape Backup add $769
- 19" Rack Mount Case At Same Price!
- FREE BUSINESS FIRST Gold Level Service

$5229

Business Lease: $190/ Mo

Network setup, installation & on site service

MacByte is a full-service Apple Authorized Reseller that will help you from choosing a system which is best suited for your needs, up to, setting up a complete network for you or your company. We are experts in converting data from PC to Mac and Mac to PC. We even have leases and will take your equipment as Trade-ins on new gear.

DESKTOPs

G3	DT 233 32/4Gig/CD	$1675
G3	MT 266 32/6Gig/CD/Zip	$2450
8600	200 32/2Gig/CD/Zip	$1695
6500	225 32/3Gig/CD/Zip	$1095
5400	200 32/2Gig/CD/Eth	$1395

MONITORSs

Apple 15AV	$375
Apple 720	$649
Sony 200GS 17"	$659
ViewSonic E771 17"	$395
ViewSonic Optiquest 20"	$999

PC LAPTOPs

Dell	Inspiron 233MHz 32/3.2Gig/CD	$2695
IBM	Thinkpad 770 233MHz 32/5.1Gig	$4995
Toshiba	Tecra 750 CDT 233MHz 32/4.7Gig	$4999

POWERBOOKs

G3	250 32/4Gig/CD/56K	$3895
3400C	200 32/2Gig/CD/33.6	$2595
1400C	166 16/2Gig/CD	$1975
1400C	133 16/1Gig/CD	$1675
5300C	16/750	$975

PRINTERSs

Hewlett Packard 4000N	$1495
Apple 8500	$1995
Image Writer II	$399
Epson Stylus 600	$269

PC DESKTOPs

Compaq	4000 233MHz 32/2Gig/CD/15" Monitor	$1395
IBM	300GL 233 32/2.5/95	$1050
Premise	100 233 PII 64/3.2/NIC/95	$1150
Premise	PII 233/64/6Gig/CD/15" Monitor Int. Zip/56K/Win 95, Office 97	$1695

Order On-Line
It's fast and easy.
See our web site at
www.macbyte.net

MacByte
SALES • LEASING • CONSULTING • TRADE-INS
www.macbyte.net

CALL TODAY!
800.432.2983

THE MEMORY OF A LIFETIME!

Memory with a Lifetime Warranty at Unbelievable Prices!

SOON TO BE SERVING YOU IN SAN MATEO

NOTEBOOK & PRINTER MEMORY

COMPAQ · apple · DELL · HEWLETT PACKARD · HITACHI · MICRONICS · IBM · TOSHIBA · NEC · SONY · TEXAS INSTRUMENTS · SHARP

& Much More!

CPUs

Intel Pentium 166MMX	$109
Intel Pentium 200MMX	115
Intel Pentium 233MMX	129
Pentium II 233MHz	229
Pentium II 266MHz	289
Pentium II 300MHz	398
Pentium II 333MHz	498
Pentium II 400MHz	849

SODIMM

72-Pin SODIMM (Notebooks)

8MB 5V/3.3V FPM/EDO	$25
16MB 5V/3.3V FPM/EDO	$49
32MB 5V/3.3V FPM/EDO	$95

144-Pin SODIMM (Notebooks)

16MB EDO/SDRAM	$49
32MB EDO/SDRAM	$89
64MB EDO/SDRAM	$168

168-Pin DIMMs

BUFFERED

EDO ECC 3.3V 32MB	$59
EDO ECC 3.3V 64MB	119
EDO ECC 3.3V 128MB	229
FPM or EDO 5V 32	59
FPM or EDO 5V 64	119

UNBUFFERED

SDRAM 3.3V 32MB	$48
SDRAM 3.3V 64MB	109
SDRAM 3.3V 128MB	199
SDRAM 3.3V ECC 32MB	59
SDRAM 3.3V ECC 64MB	129
SDRAM 3.3V ECC 128MB	249
EDO 32MB	49
EDO 64MB	99
EDO 128MB	196
EDO ECC 32MB	59
EDO ECC 64MB	119
EDO ECC 128MB	225

Batteries & AC Adapters

	Batteries for Notebooks	AC Adapters
Apple	From $49	From $65
Canon	From $60	From $65
Compaq	From $69	From $65
DEC	From $65	From $65
Dell	From $65	From $65
Gateway	From $65	------
HP	From $50	------
Hitachi	From $80	From $65
IBM	From $95	From $65
NEC	From $55	From $65
Sharp	From $38	From $65
Texas Inst.	From $68	From $65
Toshiba	From $48	From $65
And More		

We also have DC Car adapters for most Notebooks starting at $59. Please call for pricing & availability.

100MHz SDRAM

32MB 100 MHz SDRAM	$57
64MB 100 MHz SDRAM	$139
128MB 100 MHz SDRAM	$259
32MB MAC G3 SDRAM	$69
64MB MAC G3 SDRAM	$169
128MB MAC G3 SDRAM	$298

72-Pin SIMMs

EDO

4/8MB	$7/13
16/32MB	22/44
64/128MB	125/298

WITH PARITY

2/4MB	$5/11
8/16MB	23/29
32/64MB	57/149

NON-PARITY

4/8MB	$5/10
16/32MB	22/44
64MB	129

Trade In Your 72-Pin for 168-Pin

30-Pin SIMMs

IBM MEMORY

1MB 1x9	$3
4MB 4x3/4x9	10/15
16MB 16x9	59

MAC MEMORY

1MB 1x8	$3
2MB 2x8	10
4MB 4x8	13
16MB 16x8	Call

SPECIAL BUYS

1x32 (4MB) 72-Pin SIMMs	2x32 (8MB) 72-Pin SIMMs
$5	$9

On-Site Installation for Corporations Available

SWEET MEMORY

www.sweetmemory.com

SANTA CLARA
408-654-9463
FAX 408-654-9463
2450 Scott Blvd, Ste. 306
Santa Clara CA 95050
Hours: M-F 9-6 Sat 11-4

SAN FRANCISCO
415-288-9470
FAX 415-288-9469
225 Bush St., Ste. 160
San Francisco, CA 94104
Hours: M-F 9-6 Sat 11-3

COMING SOON TO SAN MATEO

NOT RESPONSIBLE FOR TYPOS. PRICES ON THESE ITEMS ARE CASH PRICES WITH MEMORY TRADE-IN. AVAILABLE ON MOST PRODUCTS, CALL FOR DETAILS. PENTIUM IS A TRADEMARK OF INTEL CORPORATION. PRICES SUBJECT TO CHANGE WITHOUT NOTICE. ALL PRODUCT OR COMPANY NAMES ARE TRADEMARKS OR REGISTERED TRADEMARKS OF THEIR RESPECTIVE COMPANIES. © COPYRIGHT 1996 SWEET MEMORY

Serving the Professional Needs of the Financial District for Over 8 Years

Intel Pentium® II Processor Based PC System

- Pentium® II 233MHz PCI/AGP/ISA Mainboard
- Intel Pentium® II 233MHz MMX Media Enhancement Technology
- 512K 2nd Level Pipeline Burst Cache
- Pentium® II CPU Cooling Fan & Heat Sink Unit
- 32MB SDRAM Memory
- 3.2GB Ultra DMA IDE Hard Disk
- 1.44MB (3-1/2") Floppy Disk Drive
- PCI Enhanced IDE Controller
- 2 Hi-Speed Serial & 1 Enhanced Parallel Port
- ATI 3D Xpression PCI SVGA Card w/4MB RAM
- Win95 PS2 104 Enhanced Keyboard
- Enhanced ATX Medium Tower Case w/235W UL Approved Power Supply
- Diamond Supra 56K Internal Fax Modem
- 24X Internal Enhanced IDE CD-ROM Drive
- 16-Bit 3D Stereo Sound Card
- Pair of Stereo Speakers 50W
- Logitech PS2 Mouse & Pad
- MS Windows 95 Software w/Manual

System Only.....$948.00

System with 15" SVGA Color Monitor $1135.00
System with 17" SVGA Color Monitor $1220.00
Upgrade to Pentium® II 266 .....Add $70.00
Upgrade to 64MB SDRAM .....Add $50.00
Upgrade to 6.4GB Ultra DMA HDD .....Add $80.00

Intel Pentium® II Processor Based PC w/DVD System

- Pentium II PCI/AGP/ISA Mainboard
- Intel BX Chipset
- Intel Pentium II 350MHz MMX Media Enhancement Technology
- 512K 2nd Level Pipeline Burst Cache
- Pentium II CPU Cooling Fan & Heat Sink Unit
- 64MB SDRAM Memory
- 8.4GB UDMA IDE Hard Disk
- 1.44MB (3.5") Floppy Disk Drive
- PCI Enhanced IDE Controller
- 2 Hi-Speed Serial & 1 Enhanced Parallel Port
- Graphics Blaster Extreme PCI w/4MB
- Win95 PS2 104 Enhanced Keyboard
- Enhanced ATX Medium Tower Case w/235W UL Approved Power Supply
- Supra Express 56K Internal Fax Modem
- DVD X2 CD-ROM Drive
- MPEG2 Decoder Card
- SB AWE64 Stereo Sound Card w/Wavetable
- Altec Lansing ACS-45 Stereo Speakers w/Subwoofer
- Iomega 100MB Internal Zip Drive
- 1* 100MB Zip Disk
- Microsoft Intellimouse & Pad
- MS Windows 95 Software w/Manual

System Only: $2190.00

Options:
System with a 17" Color Monitor (.25dpi).....$2579.00
System with a 19" Color Monitor (.26dpi).....$2679.00
Upgrade 350MHz Processor to 400MHz .....add $245.00

Upgrade Your 286/386/486 System to:

PCI/ISA Motherboard
(Supports up to 233MHz Processor)
"512K" Pipeline Burst Cache
Intel Pentium® 200MHz MMX Processor
CPU Heatsink & Cooling Fan
32MB RAM - 60ns (72 Pins)
64-Bit PCI SVGA Card w/1MB

Only $345

(Free Installation)

For other computer configurations and parts, please call.

NORTHGATE OMNIKEY 104 KEYBOARD

(High Quality, Heavy Duty Keyboard)

Only...$29.99

Limited Quantity, Please Call Today

Hewlett Packard Authorized Laser Printer Repair Service Center

IBM® HEWLETT PACKARD *Authorized Reseller*

BETA NINETIES COMPUTER INC.

IBM® HEWLETT PACKARD *Authorized Reseller*

Fast Efficient Service
•We do quick turnaround.
•We do everything we can for you.
•We're the Leader in Customer Service

566 Mission Street, San Francisco, CA 94105
(415) 974-1188 Fax (415) 974-1575

Office Hours:
M-F 9-6, Sat 10-4

DISCOVER VISA PO MasterCard

After business hours service available. 1 year parts & 2 years labor warranty on computer systems only.
Prices subject to change w/o notice. Not responsible for typographical errors. Pentium is a registered trademark of Intel Corporation.

Systems Built Just for You!

The CLS PII Super Value

- ❑ Intel Pentium II 300 w/ 512K L2 Cache
- ❑ LX440 Pentium II Motherboard
- ❑ Mid-Tower AT Case w/ 230W Power Supply
- ❑ 32MB SDRAM
- ❑ 1.44MB FDD
- ❑ 4.3GB UDMA Hard Drive
- ❑ AGP Graphic Accelerator w/4MB SGRAM
- ❑ 16-Bit Sound Chip on System Board
- ❑ 32xi CD-ROM Drive
- ❑ 56K Internal Fax/Modem w/Voice
- ❑ Serial Mouse, External Speakers
- ❑ 104 Win95 Keyboard
- ❑ MS Win95 w/ Win98 Upgrade Available

$899

MMX intel inside pentium II

Pentium MMX Value

- ❑ Intel Pentium MMX 233 CPU
- ❑ 430TX Chipset Pentium Motherboard w/512K cache
- ❑ Mid-tower AT Case w/230 watt power supply
- ❑ 32MB SDRAM
- ❑ 1.44MB FDD
- ❑ 3.2 UDMA Hard Drive
- ❑ PCI Graphic Accelerator w/4MB DRAM
- ❑ 16-Bit Sound Chip on System Board
- ❑ 56K Int. Fax/Modem w/Voice
- ❑ 24xi CD-ROM Drive
- ❑ Serial Mouse, External Speakers
- ❑ MS Win95 w/ Win98 Upgrade Available
- ❑ 15" SVGA Color Monitor 0.28dp N.I.

$799

MMX intel inside pentium II

EXECUTIVE OFFICE SYSTEM

ASUS 440BX Pentium II Motherboard
ATX Medium tower case w/230 watt power supply
96MB SDRAM
1.44MB FD
6.4GB UDMA HDD
104 Win 95 KB
Matrox Graphic Accelerator w/8MB SGRAM
Creative's PCI Sound Card
32xi CD-ROM Drive
Int. 56K Fax/Modem w/Voice
Microsoft Win 95
Ext. Stereo Speaker, PS/2 Mouse
17" SVGA Color Monitor. 0.25dp N.I.

MMX intel inside pentium II

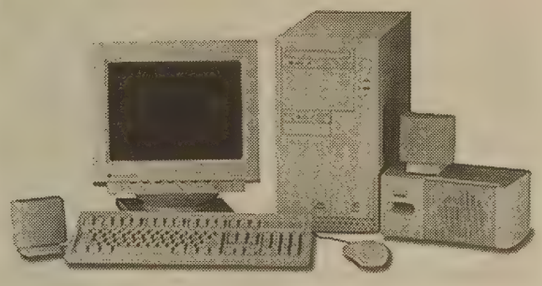
Intel Pentium II 350 MMX $1699
Intel Pentium II 400 MMX $1999

AMD K6 Super Value

AMD K6-266 CPU
Pentium Motherboard w/1MB Cache
Mid-Tower case w/230 watt power supply
32MB SDRAM
1.44MB FD
4.3GB UDMA Hard Drive
104 Keyboard for Win 95
Diamond Stealth 3D 4000 AGP w/4MB SGRAM
Creative's PCI Sound Card
Int. 56K Fax/Modem w/Voice
MS Win 95
Ext. Stereo Speakers
Serial Mouse
17" SVGA Color Monitor 0.28dp N.I.

$899

AMD



MONITORS

15" SVGA 0.28dp N.I.	$139
17" SVGA 0.28dp N.I.	$249
17" SVGA 0.25dp N.I.	$269
19" SVGA 0.26dp N.I.	$499
21" SVGA 0.28dp N.I.	$799

MOTHERBOARDS

Triton 430TX Pentium® M/B w/512 Cache	$59
TX Pro Pentium motherboard w/1MB cache and sound chip on board	$59
FIC VA503 plus 1MB cache (100 MHz Bus Speed)	$99
ASUS Pentium® II P2L 97 /P2B	$139/175

MODEMS

Internal 56K Fax/Modem w/Voice	$39/59
US Robotics 56K Fax/Modem (OEM)	$79
US Robotics 56K Fax/Modem w/Voice (OEM)	$99

CASES

Mini Tower Case w/ 230 Watt Power Supply	*$19*
Mid Tower Case w/ 230 Watt Power Supply	*$25*
Medium Tower Case w/ 230 Watt Power Supply	*$35*
Full Tower Case w/ 230 Watt Power Supply	*$59*
ATX Medium Tower Case w/ 230 Watt Power Supply	*$59/69*

MULTIMEDIA

ESS 1869 3D Stereo Sound Card 16 PnP	$12
Creative Labs Sound Blaster 16/AWE64V	$45/69
24X/32XI CD-ROM	$59/79
Yamaha M7 / M15 Speakers	$39 /59
OEM 60W / 200W / 240W / 320W Stereo Speakers	$8.99 / 21.99 / 26.99 / 27.99

VGA CARDS

Trident 9680 PCI-2MB	$29	Matrox AGP 4MB	$129
S3-Virge 3D 64 PCI-2MB	$39	Trident 9685 PCI 4MB	$49
Diamond Stealth 4000AGP 4MB SGRAM	$69	Trident Video 87 AGP 3D 4MB	$59
Diamond Viper V330 w/4MB SGRAM	$129	ATI Expert at Play PCI 4MB SGRAM	$169
Matrox Mystique II PCI 2MB/4MB	Call	ATI 3D Expression 4MB DRAM	$89

510.354.0835

CLS INC.

Fax: 510.440.9566
48521 Warm Springs Blvd., Suite 317
Fremont, CA 94539
Store Hours: Mon-Fri 10:00am to 6:00pm

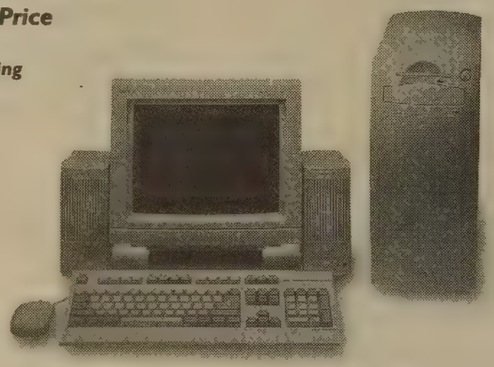
Acer Factory Outlet

Special Summer Sale

All Of This For One Great Price !!

$1799 *Tax Already Included In Price*

Not Valid With Any Other Discounts Or Offers Including Employee And Reseller

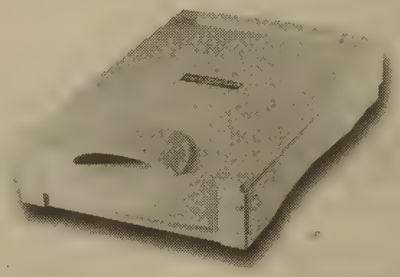


Reconditioned Aspire 2870R

- P II-333 MHz Processor, 6.4GB Hard Disk Drive, 64MB SDRAM, 32x CD-ROM, 56k Modem, AGP Graphics Card w/4 MB VRam & 3D Stereo Sound

Reconditioned 17" Monitor

- Acer View 76e, 15.7" Viewable Area, 0.27 Dot Pitch, 1280 x 1024 max resolution



AcerScan 610P Scanner

- AcerScan 610P Prisa Flatbed Scanner, Parallel Port Interface, 9600 x 9600 DPI Resolution

We accept VISA MC DISC ATM

Tel: 408-433-4903

Reseller Hotline: 408-922-5020

Fax: 408-383-9829

Open 11 a.m. to 6 p.m.
Monday — Saturday

ACER

ACER Factory Outlet
520 Brennan Street, San Jose, CA 95131

• Quantities are limited • No other discounts apply • Sales ends on June 27, 1998
• 90 day depot warranty, extended warranty available • Price subject to change without notice

LOOK AT THIS

Availability & Prices Subject to Change Without Notice & Reflect Cash and Carry Discount

486-DX 4 100 Mhz Intel CPU fr $ 35
56k Fax modem Sound blaster combo $68
6.5 GB ide hard Fuju Dr $ 192
2.1 GB seagate SCSI Barracuda $ 179

LG Hyundai MONITOR $299
Intel 100 to PCI net $67
Cyrix 166 pr 1 MB SVGA20
512 SVGA card $11
2MB 16 MIL COLOR $22
FAX/MODEM CARD $25/17
KODAK DC 215/50 PARIS
1.44 MB floppy drive $12
56 x 4 internal cd rom $62.0

Used 14 SVGA Monitors from $ 75
PS/2 MODEL 80 computer ..... $ 35
Apple Mac, pc flex etc LOW $ call
256k pipe line cache low $11.00

Notebook PC Repair and UPGrades
Best Service...Lowest Prices
2.6 GB WDr DRIVE ide 138
6.4GB 'Quantum dr $192.00
1.08GB Seagate DR- 93.00
120 MB, CONNER, .$ 33.00
4GB Seagate SCSI Fast 289
40MB,120,170,420 IDE&SCSI
56.33.6 14.4 x Bps FAX/MODEM $45/69/112

ADAPTEC 2940 PCI ...$172
ADVANTSYS ..... SCSI ..$109
CONTROLLER / IDE/FSDI/MFM/SCSI
RLL/AT/XT CONTROLLERS WE HAVE !! 1.44 / 1.2/2.88 FLOPY Mitsumi / IBM

CPU'S & MATH - CO

WE WILL BEAT ANY CPU PRICE!!
We special on Hard to find parts !
486 dx2 /66 mhz $22
486drx2-50 /SR-2-50 26
pentiumm TM 90/100 $62
808 / 128 / MATH ..... $ 18
Cyrix 233mmx----- $ 89
387-33 MATH-CO ..$ 19

COLOR IBM ED360 PORTABLE $1785.00
H.P.brother Ink printer...deskjet.fm: $69

Main Board & Simm
Atlantis Main Board Intel PCI ... $ 175
486 / DX / DX2 MAB 256K cache $ 32
486/ SLC2 / 66 MHZ... math VLB $ 45
586 AMD main BOARD & CPU $79.00
Pentium (tm) Main board w pipe C $74.00
486 DX 100/80 MAIN B 72/30 PIN $ 39.0
256k/512 pipe line cache $11.85/27.00
16 MEG SIMMS $21.00 4 MB SIMM 6.70
BEST PRICES 30 pin 4 MEG SIMMS - 13.85
32k*8 cache - 3.2, Intel CPU PULLER 2.00

Palo Alto Micro
http://www/
inetbiz.com/pam
dpamc@aol.com

3483 EL CAMINO REAL
PALO ALTO, CA 94306
TEL:(415) - 493 - 8209
(415) - 493 - 7978
(415) - 493 - 8217
FAX:(415) - 493 - 4572

The Computer Magazine
MICROTIMES
www.microtimes.com

PUBLISHER *Harry Versen*

ADVERTISING (510)768-1200
NATIONAL ACCOUNT MANAGER: *Shelley Gordon*
ACCOUNT EXECUTIVES: *Brennan Beyer, Peter Foster, Marty Gillow, Wayne Green, Todd Halvorson*
CLASSIFIED ACCOUNT EXECUTIVE: *Larry Nusbaum*
MARKET MANAGER: *Jenifer Daggett*
CREDIT MANAGER: *Andres Rojas*
SALES ASSISTANT: *Deborah Tisdale, Peter Tsung*
SECRETARY/RECEPTIONIST: *Demi Farley*

EDITORIAL (510)768-1200
email: editors@microtimes.com
EDITOR: *Mary Eisenhart*
ASSOCIATE EDITOR: *Michael Robin*
ART DIRECTOR: *Rick Colby*
EDITORIAL DESIGNER: *Eleanor Carag*
EDITORIAL ASSISTANT: *Sara Tassione*
NEWS EDITOR: *Paul Hoffman*
CONTRIBUTING EDITORS: *Jennifer R. Cherniss, John C. Dvorak, Jonathan E., Bennett Falk, Bill Gram-Reefer, Ed Kahn, Robert Moskowitz, Douglas J. Nakakihara, Fabian Pascal, John S. Quarterman, Tony Reveaux, David A. Simon, CPA, Birrell Walsh, Jim Warren*
CONTRIBUTING WRITERS: *Lenny Bailes, Laura Bell, Ivars Bezdechi, Cynthia Dyer-Bennett, Anna Couey, Matthew Leeds, Woody Liswood, Pamela Mason, Herb Mendelsohn, Michelle Rafter, Kevin Savetz*
CONTRIBUTING PHOTOGRAPHERS: *Jay Blakesberg, Tustin Ellison, Michael Jay, Anne Knudsen, Ann Summa*

INFORMATION SYSTEMS
TECHNICIAN: *Warren Raddatz*

PRODUCTION (510)768-1200
Services provided by Electronic Graphics Group-West, a division of HPC
DIVISION PRODUCTION MANAGER: *Amy Marson*
PRODUCTION SERVICES SUPERVISOR: *Kevin Price*
PRODUCTION TEAM MANAGER: *Randy Atwood*
AD COORDINATORS: *Kay Simmons, Jesse Sullivan*
PRODUCTION STAFF: *Jay Olson, Heather Porter, Mark Wortman*
QUALITY CONTROL: *Mary Knappenberger*

DISTRIBUTION (510)489-7616
Distribution provided by DistribuTech, a division of HPC
GENERAL MANAGER: *Ken Morrison*
REGIONAL MANAGER: *Steve Holm*

HPC, INC. CORPORATE OFFICES
CEO, PRESIDENT: *Robert C. Metz*
SENIOR V.P., DIRECTOR OF PUBLICATIONS: *Gary W. Austin*
NATIONAL MARKETING MANAGER: *Robert Hammond*
V.P., DIRECTOR OF DISTRIBUTECH: *David S. Crawford*
V.P., DIRECTOR OF PRODUCTION: *Randolph F. Brunner*

PRIMEDIA INC.
William Reilly CHAIRMAN & CEO
Jack Farnsworth PRESIDENT, INFORMATION GROUP
FOUNDERS: *Dennis Erokan, Don Hamilton, Pat Hamilton*

BPA INTERNATIONAL

This Vol. 14 No. 7 June 17, 1998, Whole No. 180. MicroTimes, California's Computer Magazine, is published by HPC, Inc., a PRIMEDIA Company. Bay Area Office: 1300 Clay St., Ste. 820, Oakland, CA 94612. Phone Advertising Office (510)768-1200. Fax (510)768-1288. email *sales@microtimes.com*. Los Angeles Office, 55 S. Lake Ave., Ste. 540, Pasadena, CA 91101. Phone (626)584-9155. Fax (626)584-9157. Anaheim Office, 801 East Katella Ave., Suite #210, Anaheim, CA 92805. Phone (714)939-2809. Fax (714)978-6135.

Reproduction in whole or in part without permission of Publisher is strictly prohibited. The staff and management of MicroTimes do not advocate or encourage the use of any product or service advertised herein for illegal purposes.

Free Internet Access from your friends.

Sign up with InReach Internet, refer your buddies and earn a FREE month of access for each person who signs up.

The InReach Internet Buddy Program

As an InReach member you can earn **FREE Internet access** all year long by referring your friends and family to us.

For every "buddy" that signs up with InReach you will receive a **free month** of access! Sign up 12 buddies and receive the whole year of Internet access absolutely free. It's that simple!

You can also win free prizes through the **InReach Buddy Program** such as T-shirts, mousepads, hats and more.

Get on the Internet Quickly and Easily

InReach gives you a complete Internet connection kit including a **FREE CD-ROM**, a **FREE 128 page Internet book**, and a **30 day money-back guarantee**.

We provide the fastest **56k connections**, supporting the **new V.90 standard**. You also get 10 megs of web space, online gaming, news and chat rooms on the web, toll-free tech support, and more. **Unlimited, local access statewide** is only $19.95 a month, with a onetime $19.95 setup fee.

Business Packages and Customized Solutions

Put your business on the Internet with our reliable, professional services.

InReach's business services come in several convenient packages that include **web hosting** and **email at domain names** (www.yourbusiness.com and you@yourbusiness.com), **high speed dedicated lines** from Frame Relay to T-3 connections, **server co-location**, and much more. ***Call us today to put your business on the Internet!***

INREACH internet

Call us today for your FREE Software without obligation!

800-4-INREACH

www.inreach.com info@inreach.com 800-446-7322

Sign up with InReach, get a Zoom 56K modem for $69.95!

With a new Zoom modem and InReach Internet, you'll be surfing the Internet faster than ever before! Sign up today and visit our Member site to find out more about this limited time offer and to purchase a modem online.
(Internal modem $69.95, external $89.95 after $20 mail in rebate)

WE RECOMMEND ZOOM 56K FAXMODEMS

Expect the Best!

$19.95 unlimited hours

SATISFACTION GUARANTEED 30 DAY MBG

Local Access Statewide

FREE Software

FREE Internet Book

New V.90 Supported NOW

U.S. Robotics X2 56Kbps

K56flex

MEDIA ON™

AGENDA BUSINESS

- Intel® Pentium® II Processor
- LX440 MB w/LDCM, USB
- 64MB SDRAM DIMM
- 8.4GB Ultra IDE Hard Drive
- Matrox Productiva G100 8MB AGP Graphics Card
- AUREAL A3D PCI Sound Card with 128 Voice Wavetable
- 200 Watt Stereo Speakers
- 32X CD-ROM
- US Robotics 56K V.90 Fax Modem
- 104 Keyboard /PS2 Mouse
- 1.44MB Floppy Drive
- Iomega ZIP Drive
- ATX Mini-Tower Case w/235 Watt Power Supply
- Microsoft Windows 95
- 15" .28 DPI Color Monitor w/OSD (13.8 Viewable)

Pentium® II Processor 233Mhz	$1299
Pentium® II Processor 266Mhz	$1369
Pentium® II Processor 300Mhz	$1529
Pentium® II Processor 333Mhz	$1599

AGENDA HOME

- Intel® Pentium® II Processor
- LX440 MB w/LDCM, USB
- 64MB SDRAM DIMM
- 6.4GB Ultra IDE Hard Drive
- Matrox Productiva G100 8MB AGP Graphics Card
- AUREAL A3D PCI Sound Card with 128 Voice Wavetable
- 200 Watt Stereo Speakers
- 32X CD-ROM Drive
- US Robotics 56K V.90 Fax Modem
- 104 Keyboard /PS2 Mouse
- 1.44MB Floppy Drive
- ATX Mini-Tower Case w/235 Watt Power Supply
- Microsoft Windows 95
- 19" .26 DPI Color Monitor w/OSD (18" Viewable)

Pentium® II Processor 233MHz	$1649
Pentium® II Processor 266MHz	$1719
Pentium® II Processor 300MHz	$1879
Pentium® II Processor 333MHz	$1949

www.mediaon.com

Note, Intel Inside Logo and Pentium are registered trademarks and MMX is a trademark of Intel Corporation. All other names are properties of their respective corporations. Price and specifications are subject to change without notice. Not responsible for typographic error.

Keeping you in the game.

MEDIA ON™

EXPERT II

- Intel® Pentium® II Processor
- LX440 MB w/LDCM, USB
- 64MB SDRAM DIMM
- 6.4GB Ultra IDE Hard Drive
- Matrox Productiva G100 4MB AGP Graphics Card
- AUREAL A3D PCI Sound Card with 128 Voice Wavetable
- 200 Watt Stereo Speakers
- 32X CD-ROM Drive
- US Robotics 56K V.90 Fax Modem
- 104 Keyboard /PS2 Mouse
- 1.44MB Floppy Drive
- ATX Mini-Tower Case w/235 Watt Power Supply
- Microsoft Windows 95
- 17" .26 DPI Color Monitor w/OSD (16" Viewable)

Pentium® II Processor 233MHz	$1369
Pentium® II Processor 266MHz	$1439
Pentium® II Processor 300MHz	$1599
Pentium® II Processor 333MHz	$1669

AGENDA BUSINESS PRO

- Intel® Pentium® II Processor
- BX440 Chipset MB w/LDCM, USB
- 128MB SDRAM DIMM
- 8.4GB Ultra IDE Hard Drive
- Matrox Productiva G100 8MB AGP Graphics Card
- AUREAL A3D PCI Sound Card with 128 Voice Wavetable
- 200 Watt Stereo Speakers
- 32X CD-ROM Drive
- US Robotics 56K V.90 Fax Modem
- 104 Keyboard /PS2 Mouse
- 1.44MB Floppy Drive
- Iomega ZIP Drive
- ATX Mini-Tower Case w/235 Watt Power Supply
- Microsoft Windows 95
- 17" .26 DPI Color Monitor, w/OSD (16" Viewable)

Pentium® II Processor 350MHz	$2355
Pentium® II Processor 400MHz	$2555

• 2-year limited warranty / 2-year labor

47257 Fremont Blvd. Fremont, CA 94538

TEL: 510-490-7998

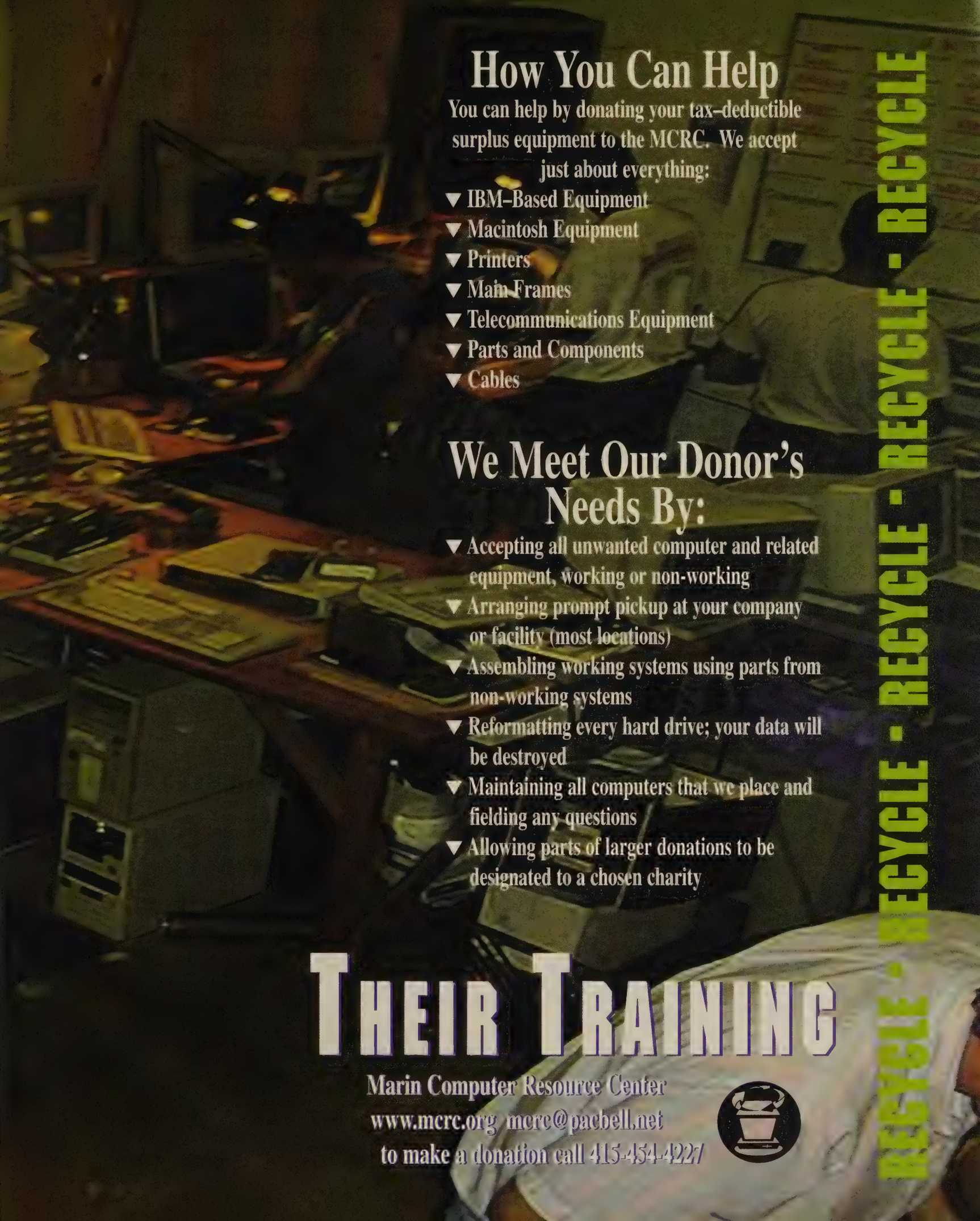
FAX: 510-490-8286

MMX™ intel inside pentium® II PROCESSOR

Your Trash

Our Mission:

To help reduce the level of poverty by providing education, technical training and employment opportunities in the computer industry through the recycling and refurbishing of used computer equipment.



How You Can Help

You can help by donating your tax–deductible surplus equipment to the MCRC. We accept just about everything:

- IBM–Based Equipment
- Macintosh Equipment
- Printers
- Main Frames
- Telecommunications Equipment
- Parts and Components
- Cables

We Meet Our Donor's Needs By:

- Accepting all unwanted computer and related equipment, working or non-working
- Arranging prompt pickup at your company or facility (most locations)
- Assembling working systems using parts from non-working systems
- Reformatting every hard drive; your data will be destroyed
- Maintaining all computers that we place and fielding any questions
- Allowing parts of larger donations to be designated to a chosen charity

RECYCLE - RECYCLE - RECYCLE - RECYCLE

THEIR TRAINING

Marin Computer Resource Center
www.mcrc.org mcrc@pacbell.net
to make a donation call 415-454-4227

SYSTEMS THAT PERFORM TO PRECISION SPECIFICATIONS

BOLData™ Adventure Series Workstations

Built with Intel® Pentium® processors with MMX™ technology, Pentium® II processors and the *ALL NEW* Intel® Celeron™ processors

Adventure Classic

- PC Chips AT Motherboard with TX Pro II PCI Chipset
- On-Board 512K of Pipelined Burst SRAM Cache
- 32MB SDRAM Memory
- Integrated 64-bit Accelerated Video Graphics
- 2.1GB Ultra DMA Hard Disk Drive
- 24X IDE CD-ROM Drive
- Integrated Sound Blaster Pro Compatible 3D Audio
- 1.44MB Floppy Disk Drive
- Mid Tower Case with 230 Watt Power Supply
- Mitsumi 104 Key Enhanced Keyboard
- Logitech Mouse
- 120 Watt Stereo Speakers
- Microsoft® Windows® 95 CD-ROM
- Fully Tested and Burned In
- ***3 Year Limited Warranty***

Intel® Pentium® Processor with MMX™ Technology 200Mhz $559
Intel® Pentium® Processor with MMX™ Technology 233Mhz $599

Only $559!

Adventure Star-2

- PC Chips AT AGP Motherboard with Intel® 440LX Chipset
- 64MB SDRAM Memory
- Trident 3D Image 9750 AGP Graphics Adapter w/4MB
- 4.3GB Ultra DMA Hard Disk Drive
- 24X IDE CD-ROM Drive
- Integrated 3D Sound Pro
- 1.44MB Floppy Disk Drive
- 56.6K PnP Fax/Modem
- Mid Tower Case with 230 Watt Power Supply
- Mitsumi 104 Key Enhanced Keyboard
- Logitech Mouse
- 120 Watt Stereo Speakers
- Microsoft® Windows® 95 CD-ROM
- Fully Tested and Burned In
- ***3 Year Limited Warranty***

Intel® Celeron™ Processor 266Mhz $725
Intel® Celeron™ Processor 300Mhz $795
Intel® Pentium® II Processor 233Mhz with 512KB Cache.....$825
Intel® Pentium® II Processor 266Mhz with 512KB Cache.....$885
Intel® Pentium® II Processor 300Mhz with 512KB Cache.....$945
Intel® Pentium® II Processor 333Mhz with 512KB Cache $1,085

Adventure Ultra

- Intel® AL440LX AGP Motherboard with USB
- 64MB SDRAM Memory
- New Intel i740 based AGP 3D Graphics Accelerator with 8MB SDRAM
- 4.3GB Ultra DMA Hard Disk Drive
- 32X IDE CD-ROM Drive
- Integrated Yamaha OPL3-SA3 Audio
- 1.44MB Floppy Disk Drive
- Zoltrix 56.6K V.90 Fax/Modem with Voice Mail and Speakerphone
- Mid Tower Tool-Free Case with 235 Watt Power Supply
- Mitsumi 104 Key Enhanced PS/2 Keyboard
- Microsoft® PS/2 Mouse
- 120 Watt Stereo Speakers
- Microsoft® Windows 95 CD-ROM
- Fully Tested and Burned In
- ***3 Year Limited Warranty***

Intel® Celeron™ Processor 266Mhz.....$939
Intel® Celeron™ Processor 300Mhz.....$979
Intel® Pentium® II Processor 233Mhz with 512KB Cache.....$1,039
Intel® Pentium® II Processor 266Mhz with 512KB Cache.....$1,089
Intel® Pentium® II Processor 300Mhz with 512KB Cache.....$1,159
Intel® Pentium® II Processor 333Mhz with 512KB Cache.....$1,309

Copyright © 1998, BOLData Technology, Inc. Pricing and specifications subject to change without notice. BOLData, the BOLData logo, Adventure Classic, Adventure Star-2, Adventure Ultra and Adventure Xtreme are trademarks of BOLData Technology, Inc. The Intel Inside logo and Pentium are registered trademarks and MMX and Celeron are trademarks of Intel Corporation. All other product or company names are the trademarks or registered trademarks of their respective owners.

Adventure Xtreme

- New 100MHz System Bus Intel SE440BX Motherboard with USB
- 64MB SDRAM Memory
- New Intel® i740 based AGP 3D Graphics Accelerator with 8MB SDRAM
- 6.4GB Ultra DMA Hard Disk Drive
- DVD II ROM Drive with MPEG II DVD Decoder Card
- Integrated Crystal 3D Audio
- 1.44MB Floppy Disk Drive
- Zoltrix 56.6K V.90 Fax/Modem with Voice Mail and Speakerphone
- Mid Tower Tool-Free Case with 235 Watt Power Supply
- Mitsumi 104 Key Enhanced PS/2 Keyboard
- Microsoft® PS/2 Mouse
- 120 Watt Stereo Speakers
- Microsoft® Windows 95 CD-ROM
- Fully Tested and Burned In
- 3 Year Limited Warranty

Intel® Pentium® II Processor 333MHz with 512KB Cache $1,380
Intel® Pentium® II Processor 350MHz with 512KB Cache $1,540
Intel® Pentium® II Processor 400MHz with 512KB Cache $1,770

Choosing the right system means finding the right components at the right price. At BOLData, we take the guess work out of finding the right system by building our Adventure Series™ systems with industry proven components. With a proven track record of offering rock solid performance at an affordable price, BOLData is your number one source for systems and peripherals. Call BOLData today for all your system needs. **1-800-923-BOLD**

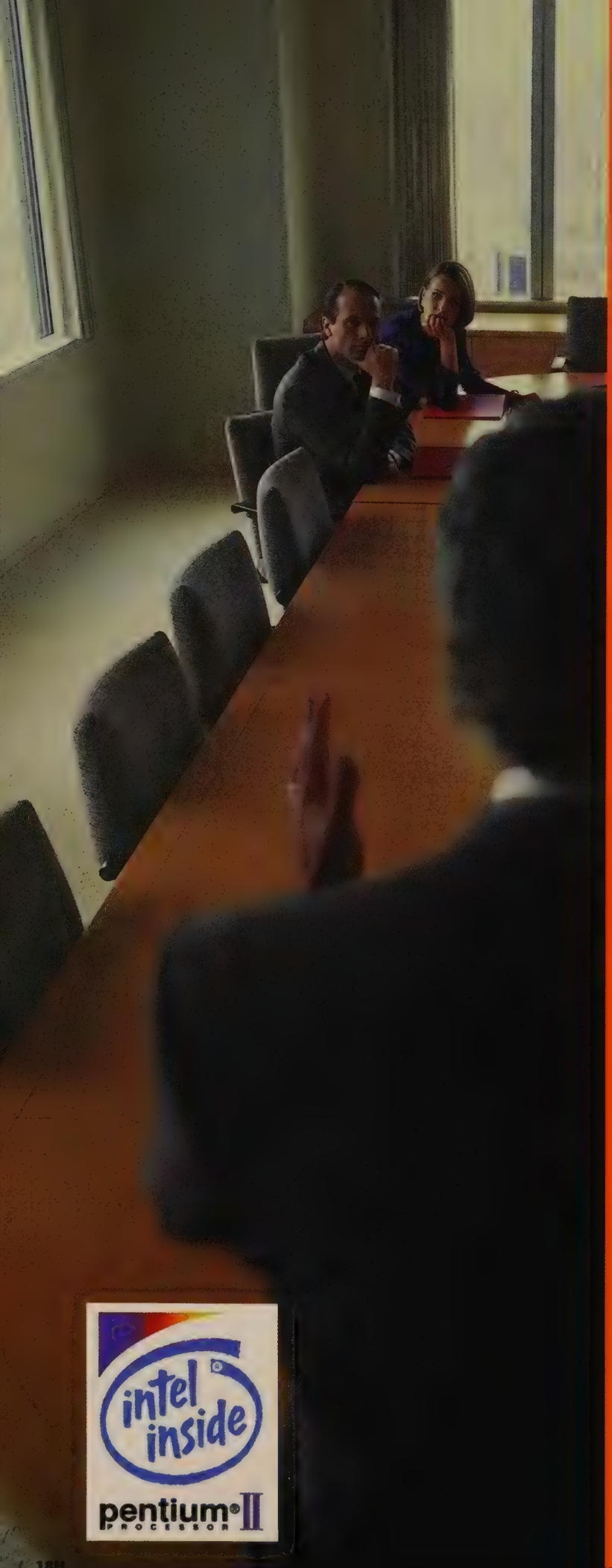
VISIT US ON THE WEB
www.boldata.com
YOUR PARTNER FOR SUCCESS

BOLData™
SYSTEMS

1-800-923-BOLD
(1-800-923-2653)

MT980617

Fremont • Toronto • Taipei • Hong Kong • Singapore • Dusseldorf.



We Mean
We Offer Total

MicroQuest CYBEREXPRESS

- Intel® Pentium® II Processor featuring MMX™ Technology-233MHz
- 32MB RAM
- 5.2GB EIDE Hard Drive
- 24X CD-ROM Drive
- 56K Internal Modem
- 4MB AGP Video Card
- 15" SVGA Monitor
- Creative Labs AWE64 Sound
- 320-Watt Stereo Speakers
- 1.44 Floppy Drive
- Medium-Tower Case w/UL Power Supply
- 104 Windows 95 Keyboard
- Microsoft Mouse
- Windows 95 Installed w/CD Included
- Microsoft Internet Explorer 4.0
- FCC Class-B Certified

$1350

#CXMT617

MicroQuest XPRESS WORKSTATION

- Intel® Pentium® Processor with MMX™ Technology-200MHz
- 16MB RAM
- 2GB Hard Drive
- 24X CD-ROM Drive
- 33.6 Internal Modem
- 16-Bit Sound Card
- Amplifed Stereo Speakers
- 2MB PCI Video Card
- 1.44 Floppy Drive
- Mini-Tower or Desktop Case w/UL Power Supply
- 104 Windows 95 Keyboard
- Serial Mouse
- Windows 95 Installed w/CD Included
- FCC Class-B Certified

$595

#EXMT617

U-tron TECHNOLOGIES

Special Corp., Govt, VAR Programs

1-800-933-7775

Fax: 510-656-1668

intel inside pentium® II PROCESSOR

Business...

Business Solutions

Introducing the most Advanced "Home Office Solution" w/Auto wake up Fax Modem!

MicroQuest

SMART CYBERXPRESS jr.

- Intel® Celeron™ Processor -266Mhz
- Slot One Advanced Technology Solution
- 32MB SDRAM
- 2.0GB EIDE Hard Drive
- 4MB AGP Video Card
- 56K Auto-Wake-Up Modem
- 15" SVGA Monitor
- 24X CD-ROM
- 16-Bit Sound Card w/AmplifiedSpearkers
- 1.44 Floppy Drive
- ATX Mid-Tower Case
- 104 Windows 95 Keyboard, PS/2 Mouse
- MS Windows 95 Installed w/CD
- FCC Class-B Certified

$999

#SCEJR617

We have the most advanced Network System with Auto-Wake-Up Network Card!

MicroQuest

SMART XPRESS WORKSTATION

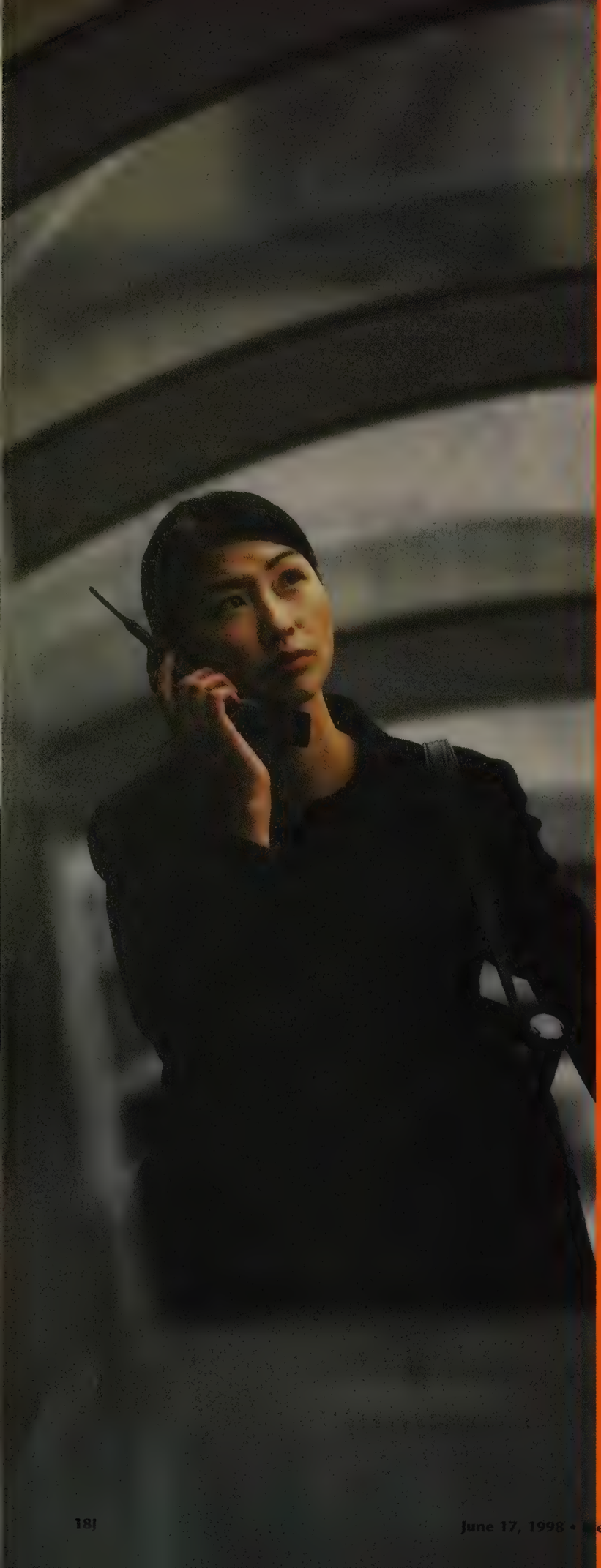
- Intel® Celeron™ Processor -266Mhz
- Slot One Advanced Technology Solution
- 32MB SDRAM
- 2.0GB EIDE Hard Drive
- 4MB AGP Video Card
- Auto-Wake-Up Network Card
- 24X CD-ROM
- 16-Bit Sound Card w/Speakers
- 1.44 Floppy Drive
- ATX Mid-Tower Case
- PS/2 Keyboard/Mouse
- MS Windows 95 Installed w/CD

$795

#SXWM617

Call for Local Service Partner
45545 Northport Loop East,
Fremont CA 94538
Email Inquiry: sales@utron.com

are subject to change without notice. Not responsible for typographic error.



Looking For Network & Internet Servers

Since 1985 we have specialized in providing high-end computing solutions nation-wide. Our engineering staff is trained in the latest technology and can provide your business the right solution.

With U-trons support and service, you get the proven performance and reliability to suit your needs. We proudly offer U-tron ULTRA Servers based on Intel Server Bare Bone Server Configurations. All ULTRA Servers feature Intel® Pentium® II Processors which set the standard for performance and data-throughput.

ULTRA Server Applications

-Mail Server
-Application Server
-Web Server
-Intranet Server

Call for Custom Configurations

MicroQuest

ULTRA Email Server

- Intel® R440LX Server Platform
- Case with chassis intrusion
- Intel® Pentium® II Processor - 266MHz
- 64MB SDRAM
- 6GB Ultra Wide SCSI Hard Drive
- 24X IDE CD-ROM Drive
- 1.44 Floppy Drive
- Windows NT 4.0 Server Software w/10 user license

$2495

#UEMSMT617

U-tron TECHNOLOGIES

Special Corp., Govt, VAR Programs

1-800-933-7775

Fax: 510-656-1668

We have the Solutions, Service, & Support

MicroQuest

ULTRA Web Server

- Intel® N440BX Server Platform
- Case with chassis intrusion
- Intel® Pentium® II Processor 350MHz
- 64MB SDRAM
- 9GB Ultra Wide SCSI Hard Drive
- 32X SCSI CD-ROM Server
- 1.44 Floppy Drive
- Windows NT 4.0 Server Software w/10 user license

$3995

#UWSMT617

MicroQuest

ULTRA Enterprise Server

- For Your Mission Critical Applications
- Fully Redundent RAID Level Server
- Intel® MB440LX Server Platform
- Case with chassis intrusion
- 5 Hot Swap Drive Bays
- 2 Redundent Power Supplies
- Dual (2) Pentium II Processors - 300MHz
- 128 MB SDRAM
- 5 (Five Drives) 4.5GB Ultra Wide SCA Hard Drives
- 20X SCSI CD-ROM Server
- 1.44 Floppy Drive
- Windows NT 4.0 Server Software w/10 user license

$8995

#UESMT617

Call for Local Service Partner

45545 Northport Loop East,

Fremont CA 94538

Email Inquiry: sales@utron.com

www.utron.com

Intel, Intel Inside Logo and Pentium are registered trademarks, MMX and Celeron are trademarks of Intel Corporation. All other names are property of their respective corporations. Price and specifications are subject to change without notice. We are not responsible for typographic error.

UNITED MICROSYSTEMS, INC.

1180 Bldg L MIRALOMA WAY, SUNNYVALE, CA 94086
TEL: (408) 737-8268, 720-7718, Fax: (408)737-2124
Res: (408) 720-7718,720-7719 Tel: (408)720-7960
Http://www.united-micro.com Email: umi@united-micro.com

WE SIMPLY BEAT ANY COMPETITOR'S PRICE AND SERVICE ! *

Leasing program, On site service available,30 DAYS FREE DEMO SYSTEM AVAILABLE!

PENTIUM II STATION

INTEL Made Pentium II CPU & MB
64 MB RAM
1.44 FLOPPY DRIVE
3.2G MB HARD DISK
PCI SVGA Card w/ 1MB
14" FLICKER-FREE SCREEN
NON-INTERLACED MONITOR
101 Keyboard & Mouse
Medi Tower ATX Case

FREE win95 w/MANUAL and CD
Upgrade option available !

Pentium II 400 MHZ $ 1599
Pentium II 350 MHz $ 1399
Pentium II 300 MHZ $ 1099
Pentium II 233 MHZ $ 899

INTEL PENTIUM MULTIMEDIA

Pentium CPU & MB
16 MB RAM
1.44 Floppy Disk
2.0 GB IDE Hard Drive
14" Flick-free NI Monitor
PCI Video w/ 1MB.
101 Keyboard & Mouse
Mini Tower case
16X Speed CD- Rom

16 bits Stero Sound
60W Speaker
FREE win95 w/ Manual & CD

Upgrade option available !

CYRIX M2/233 MMX $ 749
CYRIX M2/200 MMX $ 729
AMD k6 233MMX MHZ $ 749
AMD K6/200MMX MHZ $ 729
PENTIUM 233 MMX $ 779
PENTIUM 200 MMX $ 749

INTERNET MMX SYSTEM

Intel/Cyrix /AMD CPU & MB
16 MB RAM
1.44 MB FLOPPY DRIVE
14" FLICKER-FREE
NON-INTERLACED MONITOR
2.0 GB HARD DRIVE
1MB PCI SVGA CARD
101 ENHANCED KEYBOARD
MOUSE & 33.6 Fax Modem
MINI-TOWER CASE
FREE win95 w/ manual & CD

Upgrade option available !

Cyrix M2/233...$659
Cyrix m2/200...$629
AMD K6/200....$649
AMD K6/233....$669
Intel 233mmx..$679
Intel 200mmx ..$659

BEST VALUE

	Motherboard ALL SYSTEMS COME WITH 72 HOURS BURN IN TEST	MB+CPU	Basic System (see Bottom Detail)	Basic System+ 2.0GB HDD 32MB SVGA CARD (3.2GB + 39)	Basic System + 4.3GBMB HDD 64MB SVGA CARD (6.4GB + 69)
Dual Pentium. II-400 ; 2 CPU + $81a)	399	1199	1399	1599	1699
Intel Seattle P. II 350 (PII400 + $199)	239	849	1049	1249	1349
Intel Atlanta P. II 233 (PII300 + $159)	149	349	549	749	949
Asus P2B98 P.II350(PII400 +$199)	189	799	999	1199	1299
Asus P2L97 P.II233(PII300 +$159)	143	349	549	749	849
Intel Anchorage 200MMX (233MMX+$39)	117	217	419	619	769
Asus SP97V,P5-200MMX(233MMX+$39)	76	179	299	499	659
Asus SP97V,P5-133 (166MMX+$29)	76	159	259	459	609
Asus TxP4, P5-200mmx(233mmx+$39)	99	224	324	524	675
P5-200MMX Intel Triton TX (233MMX+$39)	69	169	293	493	649
P5-133 Intel Triton VX (166MMX+$29)	49	139	245	445	599
486 Dx4/100 VLB & PCI	53	89	189	389	539

INTEL MMX CPU, Cyrix 6X86 CPU, AMD K5/K6 CPU AVAILABLE AT THE LOWEST PRICE !

BASIC SYSTEM : (ASSEMBLED IN USA) Motherboard & CPU, Mini-Tower Case w/ power supply, 1.44MB Floppy Disk, 104 keys win95 Enhanced keyboard, IDE/IO w/ 2s/1p/1g ports, system Installed and tested.

CPU & MEMORY UPGRADE

CPU/AMD/Intel/Cyrix
Pent MMX. 200/166....LOWEST
AMD/CYRIX 200/233...LOWEST
Pentium II 233/266..... LOWEST
Pentium II 300/333..... LOWEST

SIMM/DIMM:(Name Brand Only)
EDO 4/8 MB 72 PIN.....9/15
EDO16/32MB 72 PIN....29/55
SDRAM 16/32MB 27/49
SDRAM 64/128MB.....99/199
A lot more items, Please call for beat competitor's price !

DUAL PENTIUM II/400 NT SERVER.

.Dual Pentium II MB,One 400 Mhz. CPU.
.64MB SDRAM
.Seagate Cheetah 4.5GB Ultra Wide SCSI.
.Toshiba 32X SCSI CD ROM
Adaptec 2940UW SCSI Card
3COM 3C905 Network Card
Matrox Millenium 2MB Video Card
1.44MB Floppy Drive
Keyboard & Mouse
ATX Mid-Tower Case
(Monitor Sold Separately)

$3399

Data Security Option
.DAT Tape Drive
.Mirroring
.Raid 5

SPECIAL : Flat Bed Scanner ——$69

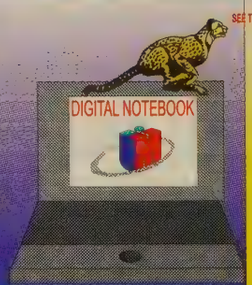
SPECIAL : Pentium Motherboard & CPU
W/ 512 K Cache on board
w/ cyrix 200 mmx + CPU
$ 138
A lot more items on sale !

FAX/MODEM

Phobe 33.6 Fax Modem (Int) /voice 39/43
Zoltrix 33.6 Fax Modem (ext)/voice.....39/43
U.S. Robotics 56K(int.)/Voice V.90.....119/135
U.S. Robotics 56K(ext.)/Voice V.90.....169/179
U.S.Robotics 33.6 (int)/voice 67/83
U.S Robotics 33.6 (ext)/voice 129/147
PCMCIA 33.6/56K Fax/Modem 57/89
A lot more items, Please call for beat competitor's price !

MULTIMEDIA

Toshiba 32X IDE CD-ROM $71
Mitsumi 16X IDE CD-ROM.....55
Toshiba/Teac SCSI 32X CD-ROM 93
Ess 3D sound(SB16 Compat.).....17
Creative Lab.SB 16 /Awe 64 .....33/63
Yamaha M7/M15 Speaker.....35/58
Stero Speaker 60/180W 10/29
A lot more items Please call for beat competitor's price !



DIGITAL HINOTE !!!

.Intel 166 MMX .3.2G Removable Hard Disk. .14.1 " Active Matrix XGA LCD. .32 MB EDO Memory .512k L2 Cache. .Integrated 16 bit stero audio. .Smart Lithium ion battery. .24X Removable CD ROM. .1.44 Removable Floppy Disk. .Touch Pad. .56K Fax modem. .Window 95 installed. .Super Light, about 5.2 lbs.	.Intel 133 MHZ .1.2G Hard Disk. . LCD. .16 MB EDO Memory. .Nimh battery. .1.44 Floppy Disk. .Touch Pad. .6.8 Lb. .Dim. 11.8 " X 8.9" X 1.9" .Window 95 installed.
$3599.00	**$1699.00**

. ONE YEAR ON SIDE SERVICE
. THREE YEARS WARANTY

DELUXE CASES

Deluxe Mini Tower w/ 230W PS 22
Deluxe Midmid tower w/230W PS 33
Deluxe Full tower w/230 w PS.....47
Desktop case w/ 230w PS 34
Power Supply 230 W. AT/ATX.....19/39
ATX mid/full tower w/ PS.....55/74
A lot more, Please call for beat competitor's price !

KEYBOARDS/MICE

Mitsumi 104 Enhanced Keyboard(win95).....10
Keytronic 104 win95 Enhanced(win95).....15
M.S. Natural keyboard(w/ Sys. only).....43
Microsoft compatinle serial mouse 5
Microsoft mouse (w/system only) serial/ps2...21/22
Logitec mouseman serial/Trackman.....19/49
Mitsumi PS2 mouse.....9
A lot more, Please call for beat competitor's price !

FLOPPY & HARD DRIVES

FD 1.44MB High Density.....19
W.D. IDE Hard Disk 2.0G/2.5G.....127/133
W.D. IDE Hard Disk 3.2G/4.3G.....147/177
W.D.IDE Hard Disk 5.0G/6.4G.....199/229
SCSI Hard Disk 1.0GB/2.0GB 99/199
SCSI Hard Disk 4.3GB Ultra Wide.....295
Zip Drive 100 MB(Internal/IDE) 79
Zip Drive 100 MB(extern/SCSI/Parallel) ..129
A lot more items Please call for beat competitor's price !

VIDEO CARDS

U.S.A. ISA SVGA 1MB.....27
U.S.A.Circus Logic PCI 1MB/2MB.....21/31
U.S.A. Trident PCI 1MB/2MB 21/31
Asus AGP 4MB 119

Diamond 3D 2MB/4MB Dram.....55/77
Diamond Stealth II 4MB/8MB SGRAM.....95/109
Diamond fire GL 8MB,PCI/AGP.....143/161
ATI 3D Expression + 2MB/4MB 61/77
ATI Expert work/play, 4MB/8MB.....151/173
Matrox Mystique 220 2MB/4MB..... 85/95

Matrox Millium II 4MB/8MB(pci/agp).... 127/169
A lot more, Please call for beat competitor's price !

MONITORS

MAG 15(DJ530)/17(DJ700) 235/429
RELISYS 14"(3+)/15"/17".....129/169/309
Acer 14"/15" 145/189
IMPRESSION 14"/15"/17" 135/174/319
Sony 15ES/17/20.....285/535/1137
Nanao17"/20" 653/1519
Nokia 15"/17"/21".....315/439/1359
Viewsonic 15"/17"/21"(P815).....225/411/1159
NEC E500(15")/A700/M700..... 327/429/549
A lot more, Please call for beat competitor's price !

IDE,SCSI I/O CARDS

Adaptec 3940 UW Dual Channel.....379
Adaptec 2940/UW SCSI Card 127/147
Adaptec 3985 Raid Controller .....Call
ISA IDE w/ 2S/1P/1G 12
DPT Raid Controller .....Call
A lot more, Please call for beat competitor's price !

NETWORK/NOVELL 4.1

Intel Etherexpress 100 ISA/PCI.....47/49
3Com ISA TP/Combo(3C509).....42/55
3Com PCI 10/100 (3C905) 58
NE 2000 Combo network card ISA/PCI 16/25
A lot more, Please call for beat competitor's price !

TAPE/SCANNER/FAN

Colorado T3000/T4000 .....153/331
Ball Bearing Cooling Fan Pent./Pent. II.....9/19
Scanner Flatbed(parallel Port) 89
A lot more,Please call for beat competitor's price !

TERMS AND CONDITIONS

1 One year parts warranty on systems purchase
2 Prices and company policy subject to change w/o notice
3 Not responsible for typographic errors
4 Return shipping must be insured prepaid and bearing a RMA# on the shipping label. Buyer must pay his/her own postage for RMA
5 Shipping ,insurance and COD charges are extra and non-refundable
6 List price reflect cash discount and limit to the available stock only
* See store for detail .Limit to cash discount price and stock availability United microsystems reserves the right to make any changes without notice

UNITED MICRO

One Company, Infinite Solutions !!

CALL FOR THE LOWEST PRICES ON OTHER ITEMS NOT LISTED.

BUS. HOURS:
MON-SAT 8:30AM-5:30PM

Decaview, The Ultimate Price & Performance Leader Presents:

Decaview monitors have the same or better quality than the other popular brands..
SO, WHY PAY MORE!!!

G387 17"

COLOR MONITOR
.25mm Dot Pitch
16" Diagonal Viewable Area
Super High Contrast CRT
Max. Resolution:
1600x1200@75Hz
1280x1024@88Hz
Reg. $439 ($100.00 Instant Rebate)

NOW ONLY: $339.00
(Price Good Until 6/27/98)

G400 19"

COLOR MONITOR
.26mm Dot Pitch
18" Diagonal Viewable Area
Super High Contrast CRT
Max. Resolution:
1600x1200@75Hz
1280x1024@85Hz
Reg. 649 ($150.00 Instant Rebate)

NOW ONLY: $499.00
(Price Good Until 6/27/98)

Ask for your Decaview monitor at your nearest computer store TODAY!!!!!

Distributed By:
Bay Area Micro
408-260-8796
1158 Saratoga Ave.,
San Jose, CA 95129

Micro Concept
510-781-0429
2223 Commerce Place,
Hayward, CA 94545

For resellers who want to carry Decaview monitors, please call:
1-888-3322-808

Acorn Computer, Inc. Tel: 650-570-727261
W. 41st Ave., San Mateo, CA 94403

IQ Infoquest, Tel: 650-917-9180
4500 El Camino Real, Los Altos, CA 94022

LJ Systems Corp. Tel: 888-455-7978
26203 Production Ave., Hayward, CA 95131

CHICOTEC, Tel: 408-954-8998
542 W. Tremble Road, San Jose, CA 95131

Tuniss Computer, Tel: 650-401-6138
1124 Broadway, Burlingame, CA 94010

Computer Jam, Tel: 510-528-0070
1611 San Pablo Ave. Suite #10C, Berkeley, CA 94702

Micro Concept, Tel: 510-781-0429
2223 Commerce Place, Hayward, CA 94545

Decaview®

Decaview
Professional Color Monitor
Tel: 510-429-8885

www.decaview.com
toll Free Decaview Tech Support
1-887-332-2832 (DECATEC)

keep an eye on the best internet value in California...

Looking for a crazy low price, but you say you want "experience from the big guys?" And of course, there's long term reliability. Not to mention 24 hours a day, 7 days a week toll-free technical support, and toll-free local dial-up. "Is that asking too much?" At JPSnet "you can count on us for all this and more!" So why pay more than you have to? JPSnet, one of California's established Internet service providers has been providing continuous Internet access for three years. JPSnet is fully equipped for high speed Internet access with the largest and most advanced resources. We can give you exactly what you're looking for...*And yes! At the right price.*

Get More Data Faster

K56 FLEX

CONNECT with Rockwell

$99/yr.

ASCEND

MERLOT PERSONAL $99/yr.
- Unlimited Internet Access
- FREE... 3 E-mail Addresses
- FREE... 20 MEGS of Web Space
- FREE... Software
- TOLL-FREE... 24 hr./7 days a wk. Tech Support
- K56 Flex Dial Up Access
- 10-Day Money-Back Guarantee

COGNAC ISDN $99/yr.
- Unlimited Internet Access
- FREE... 3 E-mail Addresses
- FREE... 20 MEGS of Web Space
- FREE... Software
- TOLL-FREE... 24 hr./7 days a wk. Tech Support
- 10-Day Money-Back Guarantee

www.jps.net
sales@jps.net

CHAMPAGNE BUSINESS $299/yr.
- Virtual Domain Hosting, ie. "yourcompany.com"
- Unlimited Internet Access
- Unlimited FTP and Access to Your Web Space
- FREE... 20 E-mail Addresses
- FREE... 50 MEGS of Web Space
- FREE... Software
- TOLL-FREE... 24 hr./7 days a wk. Tech Support
- K56 Flex Dial Up Access
- ISDN Dial Up Access Available
- Site Statistics & Secured Servers Available
- Frame Relay Available

WEB DESIGN SERVICES
- Web Page... Starting at $99

JPSnet INTERNET SERVICES

- One time setup fee of $25.

770 L Street, Suite 960, Sacramento, CA 95814

call 800-711-5353

HIQ Advanced Network Solutions

Networking | **Sales** | **Installation** | **Service** | **Support**

Servers/Workstations
Compaq
Digital Equipment
HiQ Server
HP
IBM
Intel

Networking
3Com
Bay Networks
Cisco Systems
Digital Equipment
HP
IBM
Ramp

Printers
CIE America
Datasouth
Digital Equipment
Genicom Corporation
HP
IBM
Lexmark
Mannasman Tally
Xerox Zebra

HEWLETT PACKARD · digital · IBM Business Partner · Cisco Systems Reseller · COMPAQ · Microsoft Certified Solution Provider · 3Com net Working Partners program · FUJITSU · FUJITSU PC CORPORATION · Novell. · 3Com · ramp NETWORKS · MultiTech Systems · adaptec · intel · digital Network Products

Communications
3Com
Adtran
IBM
MultiTech Systems
Microcom
Paradyne
Practical Peripherals

Services
Network Installation
Computer Repair
Help Desk

Network Design
LAN/WAN Networks
Spread Spectrum

Network Cabling
Category 5
Multi Mode Fiber
Thin/THick Net
Lifetime Guarantee

World Wide Web
Home Page Desinging/Hosting
Internet Communication/ISP Service
Intranet Design

Files & Printers Sharing, and Backup-Server Solution:

Based on the Microsoft Windows NT or Microsoft Windows 95 operating system, your office will now be able to share data as well as have access to resources over the network, such as printers. Even more, your company's vital data will be protected via the backup-recovery solution and maximize system uptime and performance.

Fax-Server Solution:

Now via one line and one modem, every workstation in the office can send and receive faxes from their desktop application. No more waiting in line, no more wasted time re-dialing due to a busy signal, no more hand-written cover pages. This solution can be expanded in the future by building a modem pool to allow simultaneous fax and dial-up networking for multiple users.

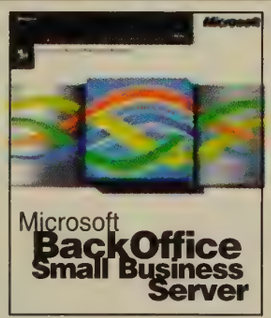
Internet, E-mail, Remote-Access Solution:

Whether you require dial-up access, ISDN or the T1 line, HiQ can supply and support the best Internet-access solution for your needs. Leverage your time and resources by accessing the power of the Web when researching information about products, your customers, and your competition! Communicate internally, and externally with your customers and vendors via e-mail. Access your company's servers remotely to stay in touch even if you are not physically there.

Free technical on-site consultation is available with qualification

HiQ B.O.S. Server

With MS BackOffice Small Business Server pre-installed, HiQ B.O.S. Server is ideal for small-business as Internet gate-way, e-mail server, and RAS. Powered by Intel Pentium® II 233MHz CPU, HiQ B.O.S.



Server comes with 64MB of RAM, a 4.3GB EIDE HDD, 24X CD-ROM Drive, 3Com 3C905 Netcard, USR 56K MDM and much more.

WebRamp Solution

Give anyone simultaneous Internet access plus remote dial-in and a built-in 4-port hub — all in one product. Use 1–3 standard modems or ISDN to get up to 165K speed, WebRamp is a perfect solution for small offices without a network administrator.

ramp NETWORKS™

HiQ RAID Server

Applying RAID protection to your mission-critical data, HiQ has solutions. Configured with an ASUS P2I97-DS motherboard, Intel Pentium II 300 CPU, 128MB SDRAM, 3 Fujitsu 4GB UW SCSI HDD, Adaptec AAA131CA Raid Controller. HP 1599 8GB Tape Drive, APC 1000XL Smart UPS, and a 32X IDE CD-ROM drive gives you options for different levels of RAID protection.

HIQ

Call 408-328-0278 to schedule a free on-site consultation

www.hiq.com

Cisco Systems Reseller · 3Com net Working Partners program · IBM Business Partner

HIQ NETWORK SOLUTIONS CENTER

SUNNYVALE
740 North Mary Ave.
Sunnyvale, CA 94086

CHICAGO
15028 Lagrange Rd.
Orland Park, IL 60462

SACRAMENTO
11225 Trade Center Dr.
Suite #100
Sacramento, CA
95742

DENVER
7808 Cherry Creek
South Drive, #409
Denver, CO 80231

MARIN COUNTY
850 Sir Francis Drake Blvd.
San Anselmo, CA
94960

ATLANTA
6060 McDonough Dr.
Norcross, GA 30093

BOSTON
80R Cambridge St.
Burlington, MA 01803

NOVELL Authorized Partner PartnerNet™

Custom Configured **Quality Systems!**
Using The Best Brand Name Parts

FOR ORDERS AND TECH SUPPORT, CALL TOLL-FREE:
(888) 4-LJSYSTEMS
55 79 78

AMERICAN EXPRESS · MasterCard · DISCOVER · VISA
No Surcharge

HTTP://WWW.LJSYSTEMS.COM

Affordable Pentium-II/300

Performance

BX chipset, .25dp Monitor, 64MB, 6.4GB, Stealth II G460 **$1,499**

COMPLETE SYSTEM CONFIGURATION (OPTIONS BELOW)

- TYAN Tsunami BX Chipset Motherboard
- Intel Pentium-II/300MHz(512K) CPU
- 64MB SDRAM (single), 100MHz w/SPD
- 6.4GB Quantum/Maxtor U-DMA/33
- Diamond Stealth II G460 i740 8MB
- Toshiba 32X IDE CD-ROM Drive
- Diamond 56K VoiceFaxModem PCI
- Teac 1.44MB Floppy Drive
- Creative Labs Ensoniq AudioPCI
- 17" (16"v) Decaview G380-2 Monitor (.25dp, 1024x768@85Hz)
- Cambridge PCWorks Speakers w/Sub
- Mitsumi PS/2 Mouse
- Mitsumi win95 PS/2 Keyboard
- Microsoft Windows 95/98/NT
- In-Win A500 ATX MidTower Case

CPU
- 233/266MHz, 66MHz (less $150/$100)
- 350/400MHz, 100MHz (add $200/$425)

HARD DRIVES
- 8.4GB Ultra-DMA/33 (+$75)
- 10GB Ultra-DMA/33 (+$125)
- 11.5GB Ultra-DMA/33 (+$165)

AGP VIDEO CARDS
- Diamond Viper V330 4MB (+$0)
- ATI XPERT 98 8MB (+$0)
- FireGL/Leadtek 2300 8MB (+$75)
- All-In-Wonder PRO 4MB (+$125)

KEYBOARDS
- Microsoft Natural (+$20)

MEMORY
- 128MB SDRAM (single) (+$80)

MONITORS
- 17" (16"v) Decaview G387 (+$50) (.25dp, 1600x1200@75Hz)
- 19" (18"v) Decaview G400 (+$310) (.26dp, 1600x1200@75Hz)

BACKUP DRIVES
- Iomega 100MB ZIP (+$75)

SPEAKERS
- ACS45 w/Sub (+$0)
- ACS48/SoundWorks w/Sub (+$100)
- ACS500 w/Sub & Surround (+$205)

SOUND CARDS
- Diamond Sonic Impact PCI (+$20)
- SB AWE 64 ISA (+$45)
- SB AWE 64 PCI (+$75)
- SB AWE 64 GOLD (+$115)

VOODOO 2
- Diamond Monster 3D-2 8MB (+$215)

JOYSTICK
- Microsoft Sidewinder Pro (+$50)

OFFICE SUITES / BUNDLES
- MS Office 97 Pro (+$150)
- MS Home Essentials 98 (+$90)

CD-RECORDERS/REWRITERS
- Mitsumi CDR 2x8 IDE (+$250)

VOICE-FAX/MODEM
- Diamond Supra 56iSP (+$15)
- USRobotics 56i/X2 1785 (+$45)

ALL PCI/AGP CARDS!

WHY YOU SHOULD BUY FROM #2 LJ SYSTEMS CORP.:
CUSTOM CONFIGURATIONS
- On-line Configurator
- Free fax/phone Quotes
- Excellent Parts Selection

COMPLETE SELECTION ON-LINE!

WHY YOU SHOULD BUY FROM #1 LJ SYSTEMS CORP.:
WARRANTY & SUPPORT
- 3 Years Warranty
- Toll-free Tech Support
- Experienced staff

ON-LINE CUSTOM CONFIGURATOR

The configurator is now working! Any system, using ALL the parts we carry, can be priced out (always with the *current, daily* pricing). You have complete specifications for all the products - our own recommendations, as well as the manufacturers specs. Also, look for incredible specials and prizes only available at HTTP://WWW.LJSYSTEMS.COM

Pentium-II/350

Premium Performance

ASUS P2B/BX, 19" Monitor, 64MB, 6.4GB, Stealth II G460 **$1,999**

COMPLETE SYSTEM CONFIGURATION (OPTIONS BELOW)

- ASUS P2B BX chipset Motherboard
- Intel Pentium-II/350MHz(512K) CPU
- 64MB SDRAM, 100MHz w/SPD
- 6.4GB Quantum/Maxtor U-DMA/33
- Diamond Stealth II G460 i740 8MB
- Toshiba 32X CD-ROM Drive
- Diamond 56K VoiceFaxModem PCI
- Teac 1.44MB Floppy Drive
- Diamond Sonic Impact 64-Voice PCI Sound
- 19" (18"v) Decaview G400 Monitor (.26dp, 1600x1200@75Hz)
- Cambridge PCWorks Speakers w/Subwoof
- Microsoft IntelliMouse PS/2
- Keytronic KT2000 PS/2 Keyboard
- Microsoft Windows 95/98/NT
- In-Win A500 ATX MidTower Case

HARD DRIVES
- 8.4GB Ultra-DMA/33 (+$75)
- 11.5GB Ultra-DMA/33 (+$165)

AGP VIDEO CARDS
- Diamond Viper V330 4MB (+$0)
- ATI XPERT 98 8MB (+$0)
- FireGL/Leadtek 2300 8MB (+$75)
- All-In-Wonder Pro 4MB (+$125)

VOODOO 2
- Diamond Monster 3D-2 8MB (+$215)
- 2 x Monster 3D-2 8MB (+$430)

JOYSTICK
- Microsoft Sidewinder Pro (+$50)

BACKUP DRIVES
- Iomega 100MB ZIP (+$75)

OFFICE SUITES / BUNDLES
- MS Office 97 Pro (+$150)
- MS Home Essentials 98 (+$90)

CPU
- 400MHz (+$225)

MONITORS
- 17"(16"v) Decaview GA387 (+$85) (Trinitron, .25dp, 1600x1200@75Hz)
- 19"(18"v) Decaview G400 (+$225) (.26dp, 1600x1200@75Hz)
- 19"(18"v) SONY 400PS (+$675) (Trinitron, .25dp, 1600x1200@75Hz)

SPEAKERS
- ACS48/SoundWorks w/Sub (+$65)
- ACS500 w/Sub & Surround (+$170)

KEYBOARDS
- Microsoft Natural (+$15)

VOICE-FAX/MODEM
- Diamond Supra 56iSP (+$15)
- USRobotics 56i/X2 1785 (+$45)

CD-RECORDERS/REWRITERS
- Mitsumi CDR 2x8 IDE (+$250)

SOUND CARDS
- SoundBlaster AWE 64 ISA (+$25)
- SoundBlaster AWE 64 PCI (+$55)
- SoundBlaster AWE 64 GOLD (+$95)

MOTHERBOARDS
- ASUS P2B, 4xPCI/3xISA/1xAGP/3xDIMM [TOP RELIABILITY]
- ASUS P2B-S, as above + Adaptec U2W-SCSI Ctrl. [TOP RELIABILITY]
- TYAN Tsunami SL, 5xPCI/2xISA/1xAGP/3xDIMM [TOP FEATURES]
- TYAN Tsunami SLA, as above + Ensoniq AudioPCI [TOP FEATURES]
- ABIT BX6, 4xPCI/3xISA/1xAGP/4xDIMM, Softmenu [OVERCLOCKING FEATURES]
- Supermicro P6DBS, 4xPCI/3xISA/1xAGP/4xDIMM, Dual CPU + Dual UW-SCSI

ASUS has long been our favorite - and still is. However, the new Tyan Tsunami board has 5 PCI sockets versus only 4 on the ASUS P2B and Abit BX6. The Tyan also comes with optional built-in Ensoniq Sound. These features, in addition to the three-year manufacturer warranty, makes the Tyan board very attractive. If you prefer a different sound card, the board is available without the Ensoniq AudioPCI. In short - if you prefer ANY other part than we list in a configuration, please let us know. You can custom configure ANYTHING! (as long as you request good quality parts that we can guarantee and support for 3 full years)

WHY YOU SHOULD BUY FROM #3 LJ SYSTEMS CORP.:
PEACE OF MIND
- 30-Day Money Back Guarantee
- No Restocking Fees
- Highest Quality, Brand Name Parts

LJ SYSTEMS CORP.
26203 Production Ave. #7, Hayward, CA 94545
(888) 455-7978 • (510) 785-4355 • fax (510) 785-4462

Terms & Conditions (complete details available upon request, and on our website):
3 Years warranty on systems • Warranty covers product defects, not negligence/physical damage • Shipping, handling and insurance are extra and non-refundable • Opened software is non-returnable (except pre-installed OS) • Absolutely no refunds after 30 days • Return merchandise must carry valid RMA#, be complete, undamaged and shipped prepaid/insured • Prices, specs and availability subject to change without notice • Not responsible for typos

Custom Configured **Quality Systems** Using The Best Brand Name Parts !

FOR ORDERS AND TECH SUPPORT, CALL TOLL-FREE:

(888) 4-LJSYSTEMS

557978

No Surcharge

HTTP://WWW.LJSYSTEMS.COM

Extreme Pentium-II/400 Performance

128MB SDRAM, 19" Monitor, Ultra-2-Wide SCSI Drive/Ctrl.

$2,699

ALL PCI/AGP CARDS!

COMPLETE SYSTEM CONFIGURATION (OPTIONS BELOW)

- ASUS P2B-S Motherboard w/U2W-SCSI
- Intel Pentium-II/400MHz MMX CPU
- 128MB SDRAM, 100MHz w/SPD
- 4.5GB Quantum Ultra-2-Wide SCSI
- Diamond Stealth II G460 i740 8MB
- Teac 32X Ultra-SCSI CD-ROM (512K)
- Diamond 56K VoiceFaxModem PCI
- Teac 1.44MB Floppy Drive
- Diamond Sonic Impact 64-Voice PCI Sound
- 19" (18"v) Decaview G400 Monitor (.26dp, 1600x1200@75Hz)
- Cambridge PCWorks Speakers W/Subwoofer
- Microsoft IntelliMouse PS/2
- Keytronic KT2000 PS/2 Keyboard
- Microsoft Windows 95/98/NT
- In-Win A500 ATX MidTower Case

7,200rpm U2W-SCSI
- 9.1GB Quantum (+$250)
- 18.2GB Quantum (+$900)

10,000rpm U2W-SCSI
- 9.1GB Seagate U2W-SCSI (+$600)

AGP VIDEO CARDS
- Diamond Viper V330 4MB (+$0)
- ATI XPERT 98 8MB (+$0)
- FireGL/Leadtek 2300 8MB (+$75)
- ELSA Gloria Synergy 8MB (+$115)
- All-In-Wonder PRO 4MB (+$125)
- Leadtek 2530 AGP (+$1,495)

MOTHERBOARDS
- ASUS, Tyan, SuperMicro w/SCSI
- Dual and Single CPU

MEMORY
- 256MB SDRAM (+$155)

SPEAKERS
- ACS48/SoundWorks W/Sub (+$65)
- ACS500 W/Sub & Surround (+$170)

MICE
- Logitech ScrollMouse w/wheel (+$0)
- Logitech MouseMan, 3-button (+$0)
- Logitech TrackMan Marble (+$25)

OPERATING SYSTEM
- Windows NT, dual boot (+$95)
- Windows NT 4.0 Server, 5 lic. (+$295)
- Windows NT 4.0 Server, 5 lic. (+$295)

VOICE-FAX/MODEM
- Diamond Supra 56iSP (+$15)
- USRobotics 56i/X2 1785 (+$45)

KEYBOARDS
- Microsoft Natural (+$15)

JOYSTICK
- Microsoft Sidewinder Pro (+$50)

SOUND CARDS
- SB AWE 64 ISA (+$25)
- SB AWE 64 PCI (+$55)
- SB AWE 64 GOLD ISA (+$95)

MONITORS
- 17"(16"v) Decaview G387 (-$225) (.25dp, 1600x1200@75Hz)
- 17"(16"v) Decaview GA387 (-$140) (Trinitron, .25dp, 1600x1200@75Hz)
- 19"(18"v) ADI MicroScan 6P (+$75) (.26dp, 1600x1200@75Hz)
- 19"(18"v) Hitachi CM-751 (+$300) (.22dp, 1600x1200@75Hz)
- 19"(18"v) Sony 400PS (+$470) (Trinitron, .25dp, 1600x1200@75Hz)
- 21"(20"v) Decaview PA630 (+$300) (Trinitron, .28dp, 1600x1200@85Hz)
- 21"(20"v) Viewsonic P815 (+$770) (.25dp, 1800x1440@76Hz)
- 21"(20"v) Sony 500PS (+850) (Trinitron, .25dp, 1800x1440@76Hz)

BACKUP&CD-R/RW SCSI DRIVES
- Iomega 100MB ZIP (+$100)
- Iomega 1GB Jaz (+$265)
- Syquest 1.5GB Syjet (+$295)
- HP Colorado TR4 8GB Tape (+$345)
- Panasonic 4x8 CD-R (+$325)
- Teac CDR-55S 4x12 CD-R (+$375)
- Yamaha 2x4x6 CD-RW (+$460)

PCI NETWORK CARDS
- Intel EtherPro 10/100TP (+$55)
- 3COM 3C905 10/100TP (+$65)
- 3COM 3C900 10/100Combo (+$75)

CD-ROM DRIVES
- Plextor UltraPlex 32X SCSI (+$115)

VOODOO 2 CARDS
- Diamond Monster 3D-2 8MB (+$215)
- 2 x Monster 3D-2 8MB (+$430)

OFFICE SUITES / BUNDLES
- MS Office 97 Pro (+$150)
- MS Home Essentials 98 (+$90)

WE WILL NEVER SACRIFICE QUALITY TO MAKE A QUICK BUCK!

LJ SYSTEMS CORP. is a mail/phone/web-order company based in Hayward. By carrying only the highest quality brand name parts we can offer our customers industry-leading warranty of 3 years for custom-built systems (parts & labor). To show that we stand behind our systems 100%, we also give you a 30-day money-back guarantee - no questions asked, and no restocking fees. We strive to make our customers happy, and will never sacrifice quality to make a quick buck! We mainly do business over the phone and ship products to our customers all over the US, but feel free to drop by to discuss your system needs - face to face - **don't worry, we are only dangerous to the competition!** We run our own internet web, ftp and mail servers in-house, and provide corporate customers with network design, system configuration and setup using Microsoft BackOffice Products.

HOW WE CONFIGURE OUR SYSTEMS

#1 Quality/Compatibility

#2 Performance

#3 Value

MOTHERBOARDS

Go for the 100MHz Front Side Bus if you can afford it. The performance difference to the original 66MHz bus is **significant**! Even if you don't want to spend the money on a 350 or 400MHz CPU at this time, you should definitely get a BX motherboard for future upgradability - the BX boards will accept 66MHz CPUs as well. Please see the comments on the previous page about our motherboard recommendations and options. We currently stock motherboards from ASUS, TYAN, ABIT and SUPERMICRO motherboards. Our preference is in the given order because of Reliability (ASUS), Warranty (TYAN, 3 years), Configurability (ABIT, Jumperless) and Dual CPU Option (SUPERMICRO, Only Dual CPU/SCSI Board as of 5/28).

CPU

We only use the Intel Pentium II CPUs. A good quality Pentium MMX motherboard costs almost as much as a Pentium II board, so the only difference in system price would be the difference between a Pentium MMX and a Pentium II CPU. The improved performance of the AGP video bus definitely makes it worth selecting the P2.

MEMORY

We always use major brand name, 100MHz (or better), SDRAM DIMM memory with EEPROM for Serial Presence Detect motherboard BIOS configuration. What the last part of the previous sentence meant was that the motherboard BIOS can download exact configuration data about that particular DIMM to ensure reliable operation. Our systems generally include only one DIMM for 64 and 128MB system memory configurations to allow for greater expandability. A word of advice - you can never have too much memory. 32MB is the absolute minimum. Go for 128MB of memory if you can afford it, and at least 64MB; you'll notice the difference!

HARD DRIVES & SCSI vs. IDE

We use a lot of Quantum drives, but in some cases find Maxtor to be a better value for Ultra-DMA/33 (Maxtor has 256K cache). Quantum has a full line of Ultra-DMA/33, Ultra, Ultra-Wide and Ultra2-Wide SCSI drives. We generally use the Viking-II/Atlas-III models for Ultra/Ultra2-Wide, available in 4.5, 9.1 and 18.2GB. To further reduce the latency and track-to-track seek time, which is important if you frequently work with a lot of files, we recommend the Seagate Cheetah 10,000rpm drives. They are available in both Ultra and Ultra2-Wide. The Ultra2Wide drives transfer data at up to 80MB/s, compared to 40MB/s for UltraWide.

SCSI has certain features, like command-queuing, which makes it the choice over IDE for disk-intensive tasks. We recommend SCSI for the NT operating system in particular, but any power-user would benefit from having a SCSI controller take the load off the CPU - freeing it up for other tasks. The advantage of having a SCSI CD-ROM over an IDE is even more significant, which is the main reason why any serious gamer should consider an Ultra-SCSI system. Final note: Don't get fooled by the 33MB/s max transfer rate of the new IDE drives (Ultra-DMA/33). SCSI is still a much more advanced interface, and your overall system performance, when you need it the most, is usually better even with a low-end SCSI disk drive. Go up to the 7,200/10,000rpm UW drives, and Ultra-DMA/33 is left in the dust.

VIDEO CARDS

We carry a full line of ATI and DIAMOND video cards. If you do graphics development, CAD, 3DStudioMax, etc. we recommend a card that does 100% hardware openGL (Diamond FireGL 1000 Pro, Leadtek 2300 or the high-end Leadtek 2500/2530). The ATI cards offer good 2D and 3D performance, as well as the best refresh rates. If you want top 3D game performance without a 3D add-on card, the Diamond Viper V330 (W/nVidia RIVA128) and the new Diamond Stealth II G460 (W/Intel i740 chipset), are your best choices. The G460 supports 256 colors (8-bit) max at 1600x1200, so we don't recommend it if you are planning to use that resolution (if you have a 21" or a high-end 19" monitor). Finally; any serious gamer should have a Voodoo 2 card. Period.

MONITORS

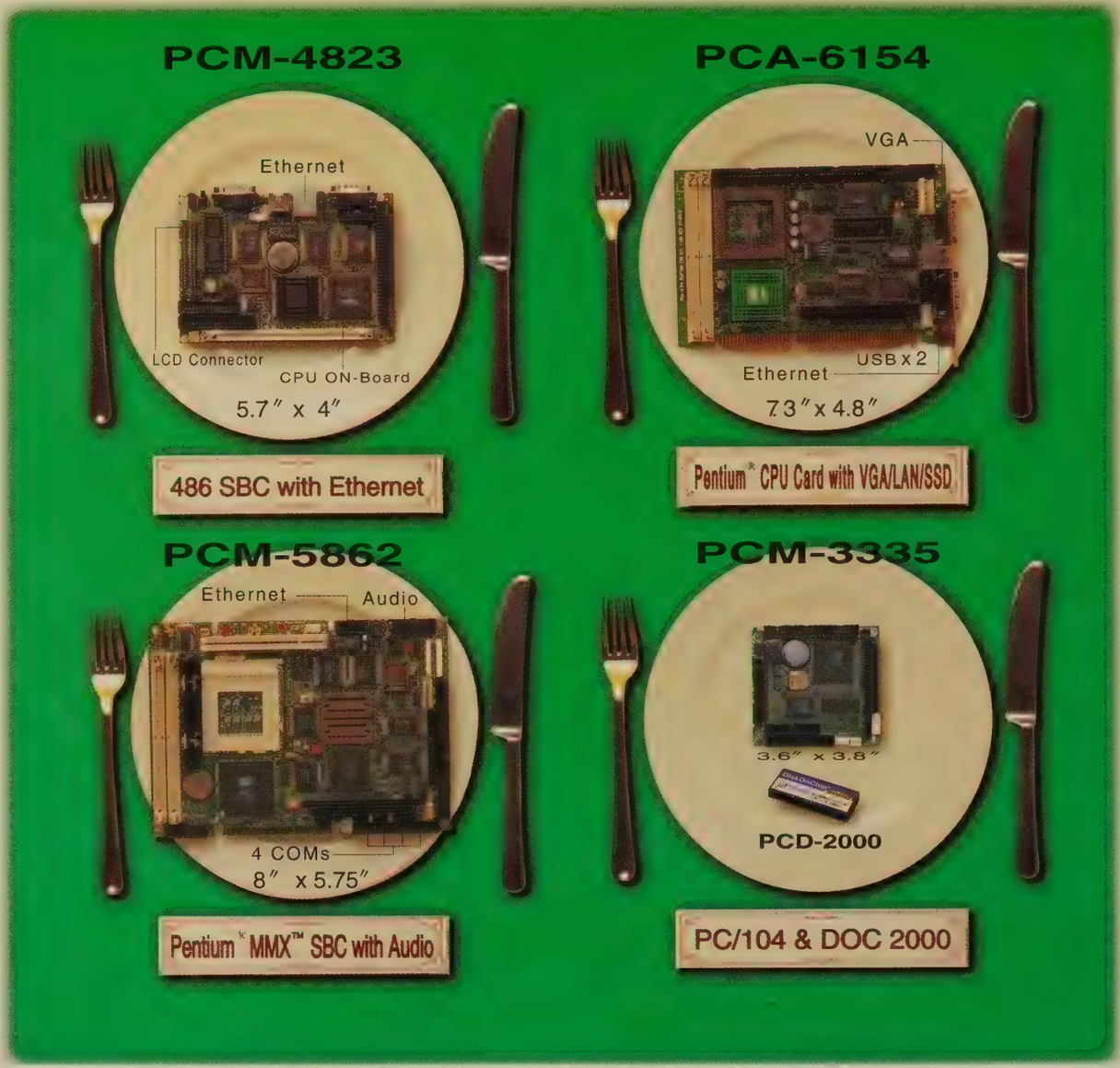
We list only a small part of the available selection - what we think gives you the best value and features. Choosing a monitor is mostly personal preference, and we can provide you with pretty much any model from Viewsonic/Optiquest, Sony, Hitachi, NEC, MAG/Princeton, Nokia, Eizo-Nanao, CTX, ADI and DecaView.

MODEMS

The PCI modems put less load on the CPU than ISA modems. We carry Diamond (k56flex) in PCI and ISA, and USRobotics/3COM (56K/X2) in ISA. All are V.90 or upgradable to V.90.

Embedded PC Banquet

Sizes to Match Any Embedded PC Application



Advantech's committed technical support capabilities and the full range of compact SBC products with powerful features can satisfy any of your application needs

Advantech provides:

★15 years of experience in the industrial automation and computing fields
★No time limitation for telephone technical consulting
★SBCs with CPUs ranging from Pentium II to 386 level
★Various form factors including PC/104, palm size, CPU cards and WD/LPX
★30-day warrantee

1997 EE Product News Products Of The Year Award

Industrial Automation with PCs
ADVANTECH

Advantech Technologies Inc.
Tel: 408-330-9399 Fax: 408-330-9393
E-mail: EPCinfo@advantech-usa.com
www.advantech.com/epc

STATE-OF-THE-ART WEB HOSTING

Activate Now! $19.95

HostPro defines a new era in web hosting–speedy, reliable service and a wealth of features starting at $19.95 per month.

STANDARD FEATURES (all packages)

- Your own domain name *(www.yourdomain.com)*
- Free domain name registration
- Both Unix and NT hosting
- 30 day money-back guarantee
- Full Microsoft® FrontPage 98® support
- Default e-mailing capability
- Web control panel for site administration
- Unlimited autoresponders
- Unlimited FTP (24 hours per day)
- Full custom CGI execution capability
- Java™, Javascript, Perl, C, S++, CTT, & Python
- Access to our vast CGI script library
- Excite® search engine
- Controllable anonymous FTP
- Daily detailed hit analysis
- Access to raw log files
- Daily complete tape backup
- Full-time uninterruptable battery backup
- Shockwave, Quicktime, Flash, Vivo & Emblaze
- Assistance w/script installation

MONEY BACK GUARANTEE 30 day

EASY SWITCH ESP PROGRAM

Free set-up on site transfers
Hassle free with our assistance

HostPro offers a variety of packages to give your site maximum impact for minimal expense. Contact HostPro about our more advanced features commerce solutions and flexible add-ons.

- ***15% Discount given on 12 month contracts***
- ***Resellers ► Ask about our NET PLANET Virtual ISP™ program***

NET VALUE $19.95

Includes standard features plus the following for just $19.95

- 60 MB of web space
- 2,000 MB of traffic/month
- 12 e-mail accounts

NET NT $29.95

Includes standard features plus the following for just $29.95

- 60 MB of web space, 2000 MB traffic/month, 12 e-mails
- ASP, ActiveX™, and VB script
- Microsoft® Access and FoxPro database support
- Microsoft® Active Server Pages
- Microsoft® Visual InterDev and Office 97 support
- Complete stat reports using WebTrends

NET PLUS $39.95

Includes standard features plus the following for just $39.95

- 100 MB of web space, 3,000 MB traffic/month, 20 e-mail
- Advanced ShopPlus Cart (a $500 value!)
- Shared secure socket layer (SSL)
- CyberCash™ live payment authorization and capture system
- RealAudio® and RealVideo®
- mSQL and mySQL databases, Cron, PHP 3.0

NET PRO $49.95

Includes standard features plus the following for just $49.95

- 100 MB of web space, 3000 MB traffic/month, 20 e-mails
- Advanced ShopPlus Cart (a $500 value!)
- Shared secure socket layer (SSL)
- CyberCash™ live payment authorization and capture system
- Cold Fusion 3.1
- Microsoft® Access and FoxPro database support
- Microsoft® Active Server Pages
- Microsoft® Visual InterDev and Office 97 support
- Microsoft® NetShow
- RealAudio® and RealVideo®
- Complete stat reports using WebTrends

Certified FrontPage™ Web Presence Provider

Around-the-Clock Tech Support

Deciding on a web host is a pretty big deal. You owe it to yourself to contact HostPro at:

1.888.638.5831

www.hostpro.net • sales@hostpro.net

HostPro
A division of NetLimited LLC

Complete Web-Database Solutions

Automate your customer and employee communications:

- Catalogs
- Job Applications
- Questionnaires, Surveys
- Automated Sales Inquiry Systems

ElectriCiti provides:

- Web-Database Hosting
- Easily Customizable Pre-built Applications (complete GUI interface builder)
- Developer Tools (access to source code)
- Expert Technical Assistance
- Custom Application Development

"Instant-On" Applications: Just log in and turn it on!

- No server to configure
- No software to install
- No scalability problems
- No administration headaches!

We call it

ZAP!™

Instant Web-Database Applications

Powerful Web-Database Applications without programming.

Industrial-strength Oracle database and Apache Web servers.

Fast Sun Sparcstations (SunOS and Solaris).

Full Administrative and programmer access.

SQL, CGI, Perl and C development tools.

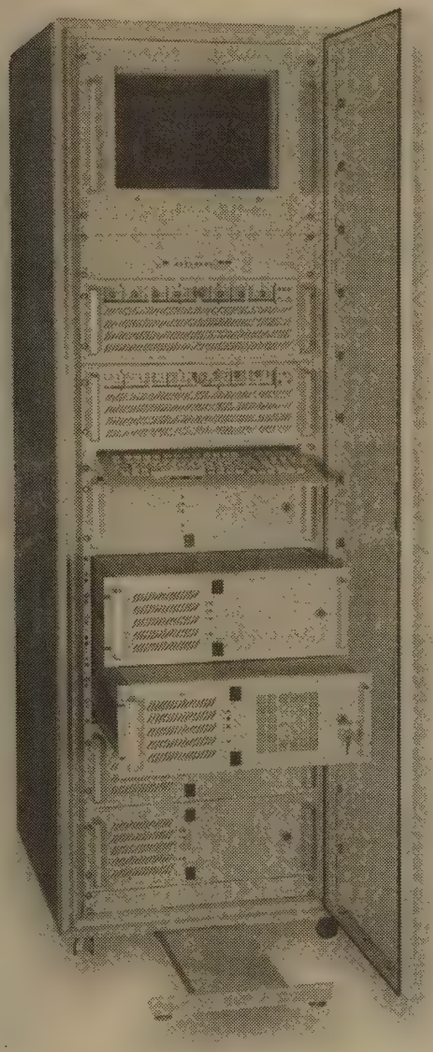
SSL, SSH and OPIE secure access from any network.

Custom CGI, Perl, Java and C development available.

For free consultation call: 619-338-9000

ElectriCiti™
Web Database Solutions

INDUSTRIAL
COMPUTER • SYSTEMS



RACKMOUNT ENCLOSURE
- 8 to 20 slot enclosure
- Single or dual hot swap power supply
- Supports most PC/AT & ATX formats
- Shock-mounted drive bays
- Locking front panel access

RACKMOUNT RAID ENCLOSURE
- Builds up to 8 removable disk drive modules
- Single or dual hot swap power supply
- 2 cooling fans

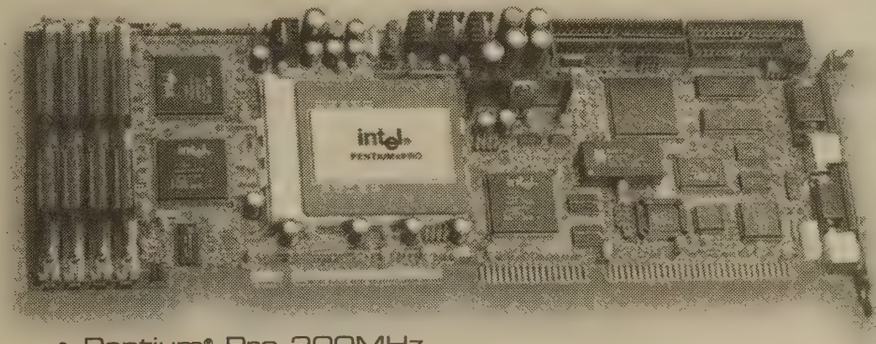
RACKMOUNT MONITOR ENCLOSURE
- 14"/15"/17" monitor enclosure
- Dust gasket between monitor screen and non-glaring front glass
- Easy access to controls

RACKMOUNT KEYBOARD
- Keyboard w/mouse holder
- Keyboard w/trackball

WALLMOUNT ENCLOSURE
- 6, 8 Slot wallmount enclosure

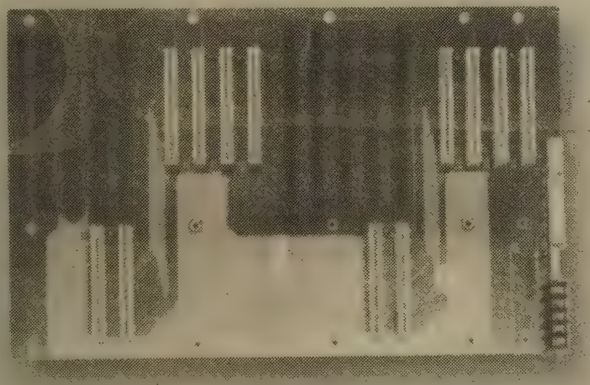
NEMA 4/12 WORKSTATION
- 14"/15" CRT or 10" TFT display touch-Ssreen panel (optional)

RACKMOUNT CABINET
- 40" to 77" w/wide range of accessories



- Pentium® Pro 200MHz
- 8MB to 256MB Fast Page Mode, EDO or BEDO
- AMI or AWARD PCI BIOS w/plug and Play
- Intel 82371SB (PIIX3), 82441FX, 8244FX Chipset
- Support Pentium® Pro processors up to 66MHz
- Dual Bus Master PCI Enhance IDE
- ATI 264VT 64-bit 2MB video on the board
- FCC Class A, CE Class A approved

From 486 to Dual Pentium® SBC



- 3-20 slots (ISA, ISA/PCI)
- Segmented backplane available
- PCI-PCI bridge chip support for 6 PCI PCIMG backplane

Catalog OnLine!
http://www.jktechnology.com
E-mail:PaulKK@ix.netcom.com
800-499-2518

J&K TECHNOLOGY

Tel (510) 226-9484
Fax (510) 226-9482

43224 Christy Street
Fremont, CA 94538

MON - FRI 8AM - 6PM

Emerging Data Standard

XML May Prove That Data Is Mightier Than Transport

By Paul Hoffman

The Internet has really always been about content. People don't find television interesting because of its electronics. People watch TV for the variety of content they can find; that same variety is what has made the Web and Internet mail so popular.

Five years ago, people looked at the Internet as the bearer of interesting content. Since then, the content has flourished; techniques of getting content to users have struggled to keep up.

Even today, getting basic audio to basic users is fraught with problems that we hear will be fixed "really soon now" when everyone has "fat pipes" to their homes and offices.

But the Internet has really always been about content. People don't find television interesting because of its electronics; in fact, today's TV electronics are amazingly similar to those twenty years ago. People watch TV for the variety of content they can find, and that variety is what has made the Web and Internet mail so popular.

Even as the amount of content on the Internet explodes, the types of content available could go through a big change due to a new technology brought to you by the World Wide Web Consortium (better known as the W3C). It has the awkward name of XML, which kind of stands for "Extensible Markup Language" if you ignore the first letter of the first word. Atypically for most cute acronyms, everyone pronounces all three letters of XML, although a few folks have been heard to call it "zimmle."

XML has the potential for being the Rosetta Stone of content on the Web. It lets developers describe what they are doing in their content, and to reuse the descriptions that others have used. For a typical example, XML might be quite useful in converting a database to another format. XML describes the format of the data, so if the second format is also defined in XML, the conversion can go much more smoothly than typical conversions.

Avoiding The Crush Of Hype

When a new technology comes into the market, the inventors often portray it as the savior of the suffering and liberator of the chained. To its credit, the W3C has avoided overselling XML, while making it clear that XML can be used in a variety of areas and has the potential for making data interchange much easier.

The W3C is showcasing the value of XML by using it in most of their new technologies, which has gotten the attention of many developers. Unfortunately, some of the computer press has started touting XML as a universal language, which it is not, and saying that the Web will rapidly switch from HTML to XML, which is simply silly.

To be clear, XML is not really a language: it is what computer science folks call a "meta-language," i.e. a language in which you can write other languages. This is why XML is so powerful: You can use it to describe the markup you used in any kind of data document, regardless of whether that document is a typical database, a Web page, a book, a collection of music, and so on.

Today, all these document types have descriptions that are readable by programmers, but not computers. Using a meta-language allows developers to describe exactly the format of their document in a computer-readable form. It is very likely that industries will start describing their common document forms in XML, so that XML-enabled programs will be able to pull out information from the documents even if the programs had never seen that kind of document before. For instance, an address book program could take a music collection and grab at least the artists' names, even if it doesn't know anything about how to handle the music itself.

XML Could Be The Next Java

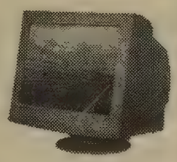
It is a bit like saying that "the Web could be the next TV," but XML is easy enough and useful enough to possibly become the Next Big Thing in the programming world. In fact, many people have started saying that XML could overtake Java in popularity because of all the nasty fighting, including protracted lawsuits, between Sun and Microsoft over who has the "purest" Java. XML, on the other hand, was developed by a somewhat neutral trade association with a large membership, and no one other than the W3C "owns" XML (to the point where they own the trademark on the name XML).

Your Business Solution Provider

UPGADES · NETWORKS · CONSULTING · REPAIRS

CyberMax 3000

- Intel Pentium® II 400MHz Processor
- Asus P2B Motherboard with New 100MHz system Bus, Intel 440BX Chipset and USB Ports
- 64MB SDRAM DIMM, 100MHz -The fastest Memory!!
- Deluxe Med. Tower ATX Case
- Built-in Enhanced 4IDE Hard Disk Controller
- 1.44MB Floppy Drive
- Toshiba DVD CD-ROM plus Video Decoder Card
- 4MB AGP Video Card with Cirrus Logic L3D Graphics Engine
- 17" Sceptre OEM Monitor
- 16- Bit Plug & Play Yamaha Chipset Sound Card Stereo
- Award Winning Best Speakers - AIWA 320 Watt Speakers with Subwoofer Auto Power
- 56K Fax Modem with Voice
- 104 Windows 95 Keyboard
- Microsoft Comp. PS/2 Mouse
- Microsoft Windows 95 Operating system w/CD, Manual, and License



450MHz CALL

$2150

Lease Only $68/mo.*

CyberMan™ 2000

- Intel LX Chipset Motherboard with 4PCI/3ISA, 4DIMM, 1AGP and USB Ports
- Intel Pentium II Processor with MMX Technology, 512K Cache
- 64MB fast SDRAM, 168 pins, Max 512MB
- Built-in Enchanced 4EIDE Hard Disk Controller
- 1.44MB Floppy Drive
- 6.4GB EIDE Ultra DMA Fujitsu Hard Drive
- 34X EIDE CD-ROM - New Ultra High Speed
- S3 Virge Chipset, 4MB PCI Video Card with Easy Soft Control
- 16- Bit Plug & Play Yamaha Chipset Sound Card
- Award Winning Best Speakers - AIWA 320 Watt Speakers with Subwoofer Auto Power
- 56K Fax Modem with Voice
- Deluxe Med. Tower ATX Case with Power Supply
- 100 Watts MultiMedia Sperakers Full Stereo
- 104 Windows 95 Keyboard
- Microsoft Comp. PS/2 Mouse - Power Mouse System
- Microsoft Windows 95 Operating system w/CD, Manual, and License

233MHz Intel Pentium® II	$999 Lease $33/mo.*
266MHz Intel Pentium® II	$1049 Lease $35/mo.*
300MHz Intel Pentium® II	$1199 Lease $37/mo.*
333MHz Intel Pentium® II	$1299 Lease $42/mo.*
400MHz Intel Pentium® II w/ASUS P2B, MB & Intel 440BX Chipset	$1749 Lease $57/mo.*

T zone

OPERA™ The Easy Internet Solution

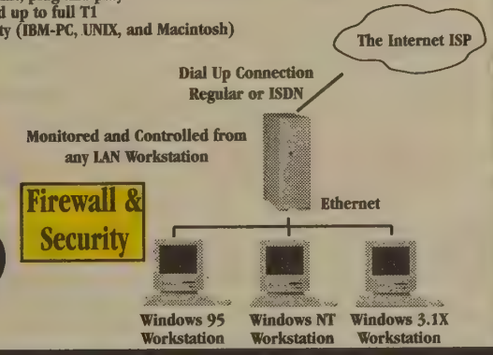
You can enjoy the OPERA™ while others whistle

Designed for any Office
Managed by any Novice
No Mail-Box Required from ISP
Use any dial-Up account from any ISP

Company Wide Internet Access

Opera™ Solutions Feature

- Opera™ provides Email and Internet access for as few as 5 users and as many as 200 users.
- Opera™ has built-In Email Server, Web Hosting, Web Access, Firewall, Modem, Ethernet Port, File Sharing and Easy Administration
- Opera™ is all in one unit, plug and play
- Support 56K, ISDN, and up to full T1
- Worstation Compatibility (IBM-PC, UNIX, and Macintosh)



E-mail for Everyone

Starting at $999

Firewall & Security

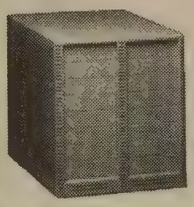
Mixed Media™ 3000 Server

Flexible, Easy to upgrade for your needs
The Only Plug & Play Mixed Media Server

The easy way to manage and access Mixed Media anywhere on your network & Web Site. Support/configure CD-ROM, Hard Drives, Jaz, Zip and Hard Drives with RAID 1 capability

Allows all user to share data and appliations simultaneously across the Networks while maintaining security of your Media

East to install: simply plug in the pwoer cord and Network cable



(10/100 Ethernet), and your ready to go Available in 7-14-28-56 Bay configurations

Easy to Install

No SCSI Cards to Configure

Starting at $1999

TeleVideo

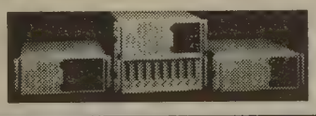
SVP260

- 17" SVGA Monitor
- .25mm Aperture Grille pitch
- 1600x1200 Max Res. @ 65Hz
- 24-82Khz horizontal frequency
- One-Touch OSD with digital Controls
- Ergonomic Design
- 3 Year Warranty

Only $299

WEB or DATA SERVER

This state of the Art Server utilizes Windows NT, and can be configured to run on a Pentium®, Pentium® Pro, or Pentium® II. Each server can be single, dual or quad. Memory starts at 64 MB (Mac 1 GB. Hard Disk capacity is 4.3GB and can be upgraded to 345GB RAID. It uses a 2MB Video Card, and a PCI Fast 10/100 TX Network Card. Get them before you get behind.

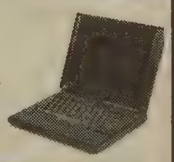


Starting at $999

IBM ThinkPad™ 560

Thin, Small & Light

The New IBM ThinkPad™ 560 is the Holy Grail of Subnotebook computing. It just weights 4 pounds and at 1.2" thick makes it very attractive. IBM Thinkpad™ gives you performance, comfort and light weight.



- 133 MHz Processor
- 40MB Memory
- 1.08MB Hard Drive
- 1.44 Floppy Drive
- PCMCIA II
- TFT screen 12.1"
- 72MB Memory Call

Sold Out

Only $1199

Prices subject to change without notice not responsible for typographical errors. All trademarks are property of their respective companies.
*Lease based on 36 months w/approved credit, restrictions apply.

CALL for Your Custom Configuration at 1-800-947-4742

T-Zone Corporate & Research, Inc.

22445 Foothill Blvd. Hayward, CA Ph 510-733-0103 Fax 510-733-0206

Visit Our Web Site: www.tzonedirect.com

STARLITE ELECTRONICS

STARLITE MIRAGE DESKTOPS AND NOTEBOOKS FOR BUSINESS AND HOME

STARLITE MIRAGE #1
PENTIUM® II HOME SYSTEMS
233MHz Intel Pentium® II Processor

- Intel 440LX AGP w/Two USB Port
- 512K Pipeline Burst L2 Cache
- Built-in Enhanced IDE I/O PnP BIOS
- 32MB of SDRAM Memory (10ns)
- Fujitsu 4.3GB UDMA Hard Drive(10ms)
- Mitsumi 1.44MB Floppy Drive
- Trident 9750 3D 4MB SGRAM AGP
- 15"1280x1024 .28 NI Monitor (17"+S99)
- Toshiba 32X EIDE CD-ROM Drive
- Yamaha 16 Bit 3D Sound Card
- Amplified 100w Speakers
- 104 Win95 Keyboard/PS2 Mouse/Pad
- 56K Fax/Modem PnP
- MS Windows 95 CD w/Manual
- ATX Tower Case w/250W UL PS
- Free CD Super Cyber Pak* (7 Titles)

$989

333MHz $1359
300MHz $1199
266MHz $1059

STARLITE MIRAGE #2
PENTIUM® II OFFICE SYSTEMS
300MHz Intel Pentium® II Processor

- ASUS P2L97 440LX AGP w/Two USB Port
- 512K Pipeline Burst L2 Cache
- Built-in Enhanced IDE I/O PnP BIOS
- 64MB of SDRAM Memory
- Quantum 6.4GB UDMA Hard Drive (10ms)
- Mitsumi 3.5i 1.44MB Floppy Drive
- Diamond Stealth 4000 3D 4MB SGRAM AGP
- VIEWSONIC G771 17" 1280x1024 .27 Monitor
- Sound Blaster 16 3D Sound Card
- Toshiba 32X EIDE CD-ROM Drive
- KeyTronics 104 Win95 Keyboard
- Microsoft Intellimouse PS2 Mouse/Pad
- US Robotics 56K Fax/Modem PnP
- Yamaha M7 Stereo Speakers
- MS Windows 95 CD w/Manual
- ATX Tower Case w/250W UL PS
- Free CD Super Cyber Pak* (7 Titles)

$1699

333MHz $1829
266MHz $1579
233MHz $1509

STARLITE MIRAGE #3
PENTIUM® II ULTRA SYTEMS
400MHz Intel Pentium® Processor/MMX

- ASUS P2B98 440BX AGP w/Two USB Port
- 512K Pipeline Burst L2 Cache 100MHz Bus
- Built-in Enhanced IDE I/O PnP BIOS
- 128MB of PC 100MHz SDRAM (7ns)
- Quantum 8.4GB UDMA Hard Drive (10ms)
- Mitsumi 1.44MB Floppy Drive
- MATROX Millennium II 4MB WRAM AGP
- VIEWSONICS PT775 17" 1600x1280 .25 Monitor
- Sound Blaster AWE 64 Sound Card
- Toshiba 32X EIDE CD-ROM
- MS Windows 95 OS2 CD w/Manual
- KeyTronics 104 Win95 Keyboard
- Microsoft Intellimouse PS2 Mouse/Pad
- US Robotics 56K Fax/Modem
- Yamaha M7 Speakers
- ATX MID Tower Case w/250W UL PS
- Free CD Super Cyber Pak* (7 Titles)

$2799

350MHz $2579

STARLITE MIRAGE #4
PENTIUM® II ULTRA SYSTEM
350MHz Intel Pentium® Processor

- ASUS P2B98 440BX AGP 100MHz BUS
- 512K Pipeline Burst L2 Cache w/Two USB Port
- Built-in Enhanced IDE I/O PnP BIOS
- 64MB of 100MHz SDRAM (7ns)
- Fujitsu 4.3GB UDMA Hard Drive (10ms)
- Mitsumi 3.5" 1.44MB Floppy Drive
- Diamond 4000 3D 4MB SGRAM AGP
- 15" 1280x1024 .28 Monitor (17" +S99)
- Sound Blaster 16 3D Sound Card
- Toshiba 32X EIDE CD ROM
- KeyTronics Win95 104 Keyboard
- Microsoft Intellimouse PS2 Mouse/Pad
- 56K Fax/Modem PnP
- Amplified 100w Speakers
- MS Windows 95 CD w/Manual
- ATX MID Tower Case w/250W UL PS
- Free CD Super Cyber Pak* (7 Titles)

$1599

400MHz $1859

Monthly Special • Two Months FREE Internet Access with Systems Purchase

STARLITE MIRAGE #5
PENTIUM® II DVD SYSTEMS
300MHz Intel Pentium® II Processor

- ASUS P2L97 440LX AGP w/Two USB Port
- 512K Pipeline Burst L2 Cache
- Built-in Enhanced IDE I/O PnP BIOS
- 128MB of SDRAM Memory (10ns)
- Quantum 8.4GB UDMA Hard Drive (10ms)
- Mitsumi 3.5" 1.44MB Floppy Drive
- ATI XPERT @ PLAY 4MB SGRAM AGP
- VIEWSONIC PT775 17" 1600x1200 .25 Monitor
- Sound Blaster AWE 64 Sound Card
- 2X DVD-ROM Drive and Decoder Card
- KeyTronics 104 Win95 Keyboard
- Microsoft Intellimouse PS2 Mouse/Pad
- US Robotics 56K Fax/Modem
- Yamaha M45 Speakers w/Subwoofer
- MS Windows 95 CD w/Manual
- ATX MID Tower Case w/250W UL PS
- Free CD Super Cyber Pak* (7 Titles)

$2899

300MHz $2589
266MHz $2479
233MHz $2409

STARLITE MIRAGE #6
PENTIUM® MMX SYSTEMS
200MHz Intel Pentium® Processor/MMX

- 512K Pipeline Burst L2 Cache PnP BIOS
- Built-in Enhanced IDE I/O
- 32MB of SDRAM Memory (10ns)
- Fujitsu 3.2GB UDMA Hard Drive
- Mitsumi 1.44MB Floppy Drive
- PCI 1MB DRAM Video Card
- 14i 1024x768 .28 NI Monitor (15"S49)
- Toshiba 32X EIDE CD-ROM Drive
- 16 bit 3D Sound/100w Speakers
- 56K Fax/Modem PnP
- Windows 95 OS2 CD w/Manual
- 104 Win95 Keyboard/Serial Mouse/Pad
- Mid Tower Case w/250W PS
- Free CD Super Cyber Pak* (7 Titles)

$759

Intel Pentium 233MHz MMX $779
AMD K6-233/ 266MHz MMX . $769/ 869
AMD K6-300MHz MMX $969
Cyrix P6-200/ 233MHz MMX . $699/ 749
Cyrix P6-266/ 300MHz MMX . $799/ 899

CHEMBOOK 3300
200MHz Intel Pentium® II Processor

- 12.1" SVGA Active Matrix TFT Display
- 256KB L2 Pipeline Burst Cache
- 32MB EDO Memory
- 2.1GB Removable HDD to 5GB
- PCI EDO 2MB Graphics Accelerator
- With 65K Color 800x600
- 3.5 1.44" Floppy Drive
- 20X EIDE CD ROM Drive
- 2 Type II & Type III slot
- 16 Bit sound w/Stereo Speakers
- PCMCIA 56 Fax/Modem
- NIMH Battery/Adapter/Carrying Case
- Win95 Keyboard/Touchpad
- Infrared FIR/RCA Jack
- Microsoft Windows 95 OS2 CD w/Manual

Starts At $1499

CHEMBOOK 2600 12.1" TFT
200MHz MMX/ 2GB/ 16MB/ 56K . $1499

CHEMBOOK 9780
266MHz Intel Pentium® II Processor

- 14.1" SVGA TFT Active Matrix Display
- 64MB of SDRAM Memory
- 512KB L2 Pipeline Burst Cache
- 4.0GB UDMA Removable HDD
- 3.5 1.44" Floppy Drive
- PCI EDO 4MB Graphics Accelerator
- With 65K Color 1024x768
- 20X EIDE CD ROM Drive
- 16 Bit 3D Surround sound
- Built-in Wavetable/Stereo Speakers
- 2 Type II & Type III slot
- PCMCIA 56 Fax/Modem
- Li-ion Battery/AC Adapter/Carrying Case
- Win95 Keyboard/Touchpad
- 2xUSB Ports/IrDA/FIR/Video In/Out
- Microsoft Windows 95 w/Manual

Starts At $3199

CHEMBOOK 9780 12.1" TFT
233MHz MMX/ 3GB/ 32MB/ 56K . $2299

One Years Part and Labor Warranty on Systems and Notebooks. Lifetime Hardware Phone Support. CORPORATE AND GOVERNMENT PURCHASE ORDERS WELCOME
*Super Cyber 7 Pak include: 1998 Grolier Encyclopedia, Mavis Beacon Teaches Typing 5.0, Chessmaster 5000, Printmaster Gold, A.D.A.M. The Inside Story, U.S. Atlas & Almanac, World Atlas & Almanac.
Please visit our wed site for more option HYPERLINK http://www.starlite www.starlite-electronics.com

FAX/MODEMS

56K FAX/MODEM/VOICE Int $49
56K FAX/MODEM Int. $59
US Robotics Sportster 56K Int. $89
US Robotics Sportster 56K Int.V.90. . . . . $149
US Robotics Sportster 56K Ext. V.90 . . . . . $189
US Robotics Sportster 56K Voice Ext. $199
56K PCMCIA Fax/Mode $99

HARD/FLOPPY/ ZIP DRIVES

540MB/1.2GB IDE. $79/99
3.2GB/4.3GB UDMA FUJITSU $139/169
6.4GB/8GB UDMA $219/299
2.1GB/3GB/4.GB/5GB (NOTEBOOK) S199/S299/S459/S699
4.5GB/9GB SCSI II Western Digital. $499/799
Mitsumi 3.5" 1.44MB. $17
Iomega Zip 100MB Int. w/one Cartridge . . . $89
LS120MB w/one 120MB Disk $99

MEMORY/CPU

1MB(1X3)/1X9/4MB(4X3) 30PIN. $3/5/10
8MB/16MB/32MB EDO 72PIN(60ns). . $15/29/49
32MB/64MB/128MB 168PIN
SDRAM (10ns) $39/99/189
64MB/128MB PC100 (7ns). $139/269
AMD K6-233/266/ 300MHz MMX . . $95/175/289
Cyrix P6-200/233/266/ 300MHz MMX $69/79/129/199
Intel P5 200/233MHz MMX $109/139
Intel PII 233/266/300/333MHz . . $199/269/399/539
Intel PII 350/400 MHz. $639/859

MONITORS

14" 1024X768 .28 SVAG NI
15" 1280x1024 .28 SVGA NI. $159
17" 1280x1024 .28 SVGA NI. $299
Iiyama S901 G 19" .26 . . . . . $739
MAG DX700T 17" $569
NEC A500/A700 . . . . . $269/469
Nanao T2 17" .25 . . . . . $799
Sony 17"i 200GS 1280x1024 .25. . . . . $599
Viewsonic 15GS 15" 1280x1024 .28. . . . . $279
Viewsonic G771 17" 1280x1024 .27. . . . . $419
Viewsonic G790 19" 1600X1280 .26. . . . . $769
Viewsonic G810 21" 1600x1280 .26. . . . . $969

MOTHERBOARDS

ASUS P2B 98 440BX Pentium II 233-400MHZ $199
ASUS P2L 97 440LX Pentium II 233-333MHZ. $149
ASUS TX97 E 512K 75-233MHZ $129
ASUS SP97 512K 75-233MHZ. $79
M-701 440LX Pentium II 233-333MHz $109
Triton TX 512K PCI 75-233MHZ w/Sound. $79
Triton TX 512K PCI 75-233MHZ. $69

MULTIMEDIA

Sound Blaster 16Bit 3D ISA/PCI. $35/39
Sound Blaster AWE 64/Gold $69/139
Toshiba 24X/32X EIDE CD ROM. $59/69
Creative 2X DVD ROM Kit $279
YAMAHA 3D 16 BIT Sound Card. $15
YAMAHA M7/M45 . . . . . $39/149

VIDEO CARD

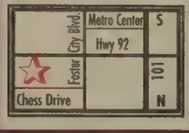
ATI Xpert @ Play 4MB SGRAM AGP/PCI. . . $99/89
ATI Xpert @ Play 8MB SGRAM AGP/PCI. $119/115
DIAMOND FIRE GL 1000 PRO 4MB/8MB SGRAM AGP. $139/169
DIAMOND FIRE GL 1000 PRO 4MB/8MB SGRAM PCI $119/159
DIAMOND Stealth 3D 2000 PCI 2MB $49
DIAMOND Stealth 3D 4000 AGP 4MB $59
DIAMOND VIPER V330 4MB AGP/PCI. $99
DIAMOND 2500 1MB/2MB $19/29
MATROX Millennium II 4MB WRAM (OEM) . . . $139
MATROX Millennium II 8MBWRAM PCI (Retail) $229
TRIDENT 9680/9750 1MB/4MB $22/39
VGA to TV Card $79

MISCELLANEOUS

Imager 30bit Color Scanner $99
ISA/PCI Ethernet Card (Combo). $19/30
3C905 TX PCI 10/100 TP $59
Mini Tower 230W PS $25
Mid Tower 250w PS $39
ATX Tower 250w PS $59
Adaptec 2940UW SCSI $169
ISA IDE I/O. $15
PCI IDE. $15
Removable HD Kit IDE $19

CORPORATE AND GOVERNMENT PURCHASE ORDERS WELCOME

FOSTER CITY LOCATION



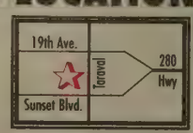
1161 Chess Dr., Ste. D,
Foster City, CA 94404
Tel: 650-372-9289
Fax: 650-372-9778
M-F 9-6 • Sat. 10-4

One Year Part and Labor Warranty on Systems and Notebooks.
Lifetime Hardware Phone Support.
Please visit our web site for more option
www.starlite-electronics.com

Prices subject to change without notice. Not responsible for typographical errors. Credit Card prices are different from cash on systems and parts.

SAN FRANCISCO LOCATION

2121 Taraval Street,
San Francisco, CA 94116
Tel: 415-665-9289
Fax: 415-664-4018
M-F 9-6 • Sat. 10-5



Java is currently going through a phase where many people in the Java community are wondering when all the promised results will arrive. XML, being near the beginning of its life, is still mostly promise. However, since XML is a format and not a language, there are already many XML tools available, and many languages already have XML schemas (as they're called) for them. Now that Java developers have seen how protective Sun has been of Java, they are less than thrilled when every major Java development is late. XML's development is giving it many advantages that Java never had.

The fact that XML is so closely linked to the Web has certainly helped get it publicity. Java's initial publicity was also linked to the Web, with it's "write once, run anywhere" theme that turned out to be more of a wish than a promise. XML can really "run anywhere" because it doesn't have anything to do with the underlying operating system, or even the links over which the data travels.

Using XML instead of HTML will mean that text really appears where you want it, that every feature you want you can get, and that links are much more useful than HTML's links.

Because the fragmentation of the Web seems reasonably permanent, XML could become the most popular way to bridge the islands. Of course, documents move just as easily through email as they do on the Web, and XML will have as big an impact in your inbox as it does in your Web browsing.

Even though XML itself is new, it actually comes from another meta-language that has a long history: SGML. Although few people have ever heard of SGML, the SGML community has been around for over a decade, and there are plenty of people who have worked long and hard on it, so they know which parts work and which parts don't. XML's developers took this list and pared out most of the parts that didn't work. The result was a meta-language that is much easier to use, and is only a little less robust than full SGML. Interestingly, most people in the SGML world have embraced XML instead of disparaging it as "less than SGML."

Where XML Will Take The Internet

Early XML developers are already taking the language and running with it. The first big change Web and email users will probably see, maybe within a year, is that there will be more document types available to Web and mail clients without clunky "plug-ins" or other methods for display. Microsoft and Netscape will probably both include XML parsers in their browsers, and this means that new document types that have associated XML schemas might be able to be displayed directly.

This is not to say that HTML is going away any time soon. Even though most content providers are dying for something better, until there are lots of browsers that support XML, HTML will still thrive. However, once XML catches on, no one in their right mind will continue to code in HTML.

Barcode Is Our Specialty
Software Solutions
Inventory Control
Asset Tracking
Quality Assurance Systems
Work-in-Process
Custom Solutions
Since 1985, Input Automation has been a single source for all your barcode needs: hardware, software, consulting and system design. Our philosophy is based on two principals: high quality industrial products, and the best technical and sales support available.
Barcode Equipment
Scanners, Terminals, Check Readers, Etc.
Portable Data Collection
• FREE TRAINING !
• Local Technical Support
• Major Credit Cards Accepted
Terms Available OAC
• Dealers Welcome
(800) 641-8607
Input Automation, Inc.
http://www.inputautomation.com
fax: (310) 530-2849 or (415) 893-1856

Transfer your 35mm color or black & white negatives or slides onto a Photo CD

KODAK FLASHPIX!

Why you'll like it...

- FlashPix format is not power hungry
- Printing is predictable
- Using pictures takes less RAM and disk space
- Multiple images display easily

PHOTO CD OFFER

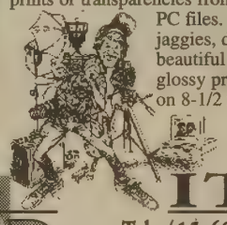
$10 Off

Your First Photo CD Transfer

- Minimum order is $21
- First-time customers only
- Must present this coupon
- Not to be combined with any other offers
- Promotion expires June 30, 1998

Now Get Brilliant Kodak Dye Sub Prints From Your Computer File

We just added a Kodak 8650 Dye Sublimation Printer to create fantastic photo-realistic quality prints or transparencies from your MAC or PC files. No banding, jaggies, dots or steps! Just beautiful continuous-tone glossy prints up to 8x10 on 8-1/2 x 12 paper.



WE PROVIDE SPEEDY SERVICE

- Rush Service Available
- 2 Day Fast Turnaround (Working Days)
- Ship us your order & we'll ship it back for free

Photo CD service includes limited color correction & image rotation

ITS CD

ITS·CD IMAGE TRANSFER SYSTEM

Tel: 415-682-3981 • Fax: 415-682-3980

514 Frederick Street • San Francisco, CA 94117

(Near Stanyan)

M-F 10-7 Sat + Sun 10-5

Trade In - Trade Up!

FREE 3 Hr. Win. Class by Computerific w/Ea. System Purchased!

OPEN 7 DAYS A WEEK

BUY SELL TRADE

COMPUTERS
PRINTERS
MONITORS
MEMORY
REPAIRS
UPGRADES

Computer Renaissance has added another store in Pleasant Hill to our existing stores in Colma, San Jose & Fremont with even MORE used computer equipment. We buy, sell & trade computers: 486, Pentiums, Macs & Notebooks. We recondition computer equipment to work like new, with a warranty!

- ✔ Fast Turnaround on Service & Repairs
- ✔ Internet-Ready Complete Systems Including Monitor Starting at Under $500
- ✔ Trade In Your Old Computer Equipment for Newer Equipment
- ✔ Extended Warranties Available

Visit our showrooms and try one out. This isn't just a neat idea - it's a neat store!

Computer RENAISSANCE

Now in PLEASANT HILL
959 Contra Costa Blvd.
Across from Sun Valley Mall
510-680-1224

SOUTH BAY
5263 Prospect Rd.
San Jose (Westgate West Center)
Between Lawrence Exp./Saratoga
(408) 873-8070

COLMA
280 Metro Center
Colma, CA 94014
(650) 758-1181

FREMONT PLAZA
3750 Mowry Ave.
(510) 744-1600

We buy, sell & trade used & new computer equipment.

FINANCING AVAILABLE

Instead, they'll define their own document types in XML (or borrow some well-known schemas) and use them instead. Using XML instead of HTML will mean that text really appears where you want it, that every feature you want you can get, and that links are much more useful than HTML's links.

Fortunately, by the time that the popular browsers support XML, there will be plenty of HTML-to-XML translators. XML's designers were careful to make XML look enough like HTML that someone who knows HTML will not have to learn a completely new set of concepts in order to create XML pages. It will be more like switching from WordPerfect to Word. Today's HTML editing tools will be easy to convert to XML, and because XML gives you better layout options, these editors will probably mostly push users towards outputting XML.

If all XML did was completely replace HTML with a more flexible and useful tool, it would be enough. However, text layout is just the beginning for XML. Its real strength is in giving underlying information a structure that different kinds of programs can get at. When you look at it this way, converting HTML text to XML lets a display program not only show the text the way the creator wanted, it lets the program understand some of the semantics of what is being said, such as "this is a name" or "this is an important picture."

Java is currently going through a phase where many people in the Java community are wondering when all the promised results will arrive. XML, being near the beginning of its life, is still mostly promise.

The information we handle, and therefore the information being passed around on the Web, is much more than just text, however. Databases have structure. Books have structure. This magazine has structure, and even the ads in this magazine have structure. If those structures were easy to handle by a variety of programs, we could use information much better. This is the real promise of XML.

Imagine being able to look at an Internet-based copy of an issue of this magazine and perform a search for every advertisement that includes a particular modem at a particular price. That's a pipe dream today, but if the magazine was structured so that your browser knew what was and was not an ad, and that within each ad there was enough structure so you can tell what parts were products and what parts were the associated prices, it would be easy. XML makes this kind of structuring fairly easy.

Of course, this will all only happen if XML tools appear. That seems pretty likely, however, since there are already so many HTML tools, and because there are lots of little-known SGML tools as well. This year will be the year of "XML everywhere" pronouncements, plus some beginning appearances. Next year, the reality will hit, and as long as people don't expect the sun and moon from XML, but instead expect the sun and moon to be structured, XML may overcome the Java curse and give us all more useful documents. ◆

Copyright © 1998 by Paul Hoffman. All rights reserved.

UMAX

SUPER BUNDLE!

PowerLook II - $1298

w/ FREE ArtPad II Tablet and Painter 5 Software

A great deal on the model PC Computing called "the best of the 36-bit scanners." 600x1200 optical resolution, 36-bit color. Includes trans adapter, Adobe Photoshop 4.0, Binuscan PhotoPerfect, MetaCreations Painter 5, and a coupon for a free Wacom ArtPad II graphics tablet. Drivers available for Mac, Windows, NT, even Unix. Get 'em while they're hot!

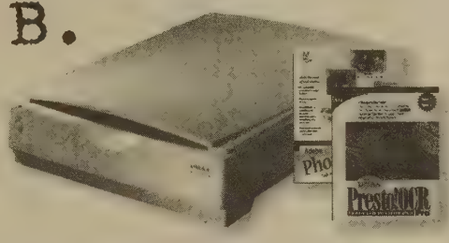
Great Umax scanners under $200...

A.

Astra 600P - $128

300dpi, 30-bit color scanner with legal-size bed, Adobe PhotoDeluxe and Presto! OCR. Add $20 for SCSI interface.

B.



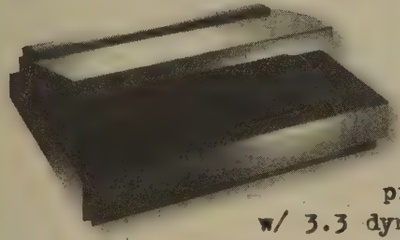
Astra 610P - $98*

300dpi, 30-bit color scanner with letter-size bed, Adobe PhotoDeluxe and Presto! OCR. Add $30 for SCSI interface.

C.

Astra 1220P - $198

600dpi, 30-bit color scanner with letter-size bed, Adobe PhotoDeluxe and Presto! OCR. Add $50 for SCSI interface.



Mirage IIse
Now $2998

700x1400dpi, 36-bit A3 (11"x17") professional scanner w/ 3.3 dynamic range and CDS technology. Includes trans adapter and Binuscan PhotoPerfect software.

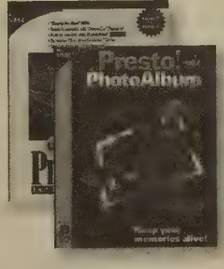
Gemini D16
Now $748

CLEARANCE

Unique 400x800dpi, 30-bit, letter-size scanner w/ 2 lenses for maximum performance. Includes trans adapter, Adobe Photoshop 4.0 and Presto! Pro. Only a few left!

MDX8000 Digital Camera - $278

Captures 800x1000 pixel images in 30-bit color. A great tool for adding graphics to web pages without using film. Includes flash, self-timer, batteries/adapter, and Adobe PhotoDeluxe.



Your Choice - $49

Presto! OCR, PhotoAlbum

Software engineered for Umax scanners: Presto! OCR converts scanned pages into text files, while Presto! PhotoAlbum keeps all your images close at hand.

EnVisions 800/365-SCAN

"WE'RE THE SCANNER GUYS" (a.k.a. 800-365-7226, or 408-735-0200)

* Price includes $20 mail-in rebate from Umax. Moneyback guarantee does not include freight charges, and all returns must be authorized by Envisions. Products & prices subject to change without notice; not responsible for typographical errors. © 1998 Envisions, 3485 Kifer Road, Santa Clara, CA 95051.

MicroTimes Stock Indexes Heads Sharply Lower

EXCH	COMPANY	TICKER SYMBOL	CLOSING PRICE 04/30/98	CLOSING PRICE 05/29/98	NET CHANGE IN PERIOD	PERCENT CHANGE IN PERIOD	P/E RATIO	ANNUAL DIVIDEND RATE	ANNUAL DIVIDEND YIELD	ANNUAL HIGH	ANNUAL LOW
	SOFTWARE										
NAS	Adobe	ADBE	50.06	39.94	-10.13	-20.22	18	0.20	0.50	53.13	33.50
NAS	Autodesk	ADSK	47.00	42.50	-4.50	-9.57	21	0.20	0.47	51.13	30.50
NAS	Borland	BORL	10.00	8.31	-1.69	11.50	-	0.00	0.00	12.19	5.88
NAS	Brøderbund (L)	BROD	17.88	16.00	-1.88	-2.05	-	0.00	0.00	37.75	16.00
NAS	Informix	IFMX	9.88	6.81	-3.06	16.18	-	0.00	0.00	12.44	4.00
NAS	Macromedia (H)	MACR	14.94	15.84	0.91	0.42	-	0.00	0.00	17.25	7.13
NAS	Microsoft	MSFT	90.13	84.81	-5.31	0.70	54	0.00	0.00	99.13	58.75
NAS	Novell (H)	NOVL	10.00	10.50	0.50	-6.71	-	0.00	0.00	11.88	6.28
NAS	Oracle	ORCL	25.88	23.63	-2.25	-18.02	31	0.00	0.00	42.13	17.75
NAS	Symantec (H)	SYMC	29.00	23.88	-5.13	7.66	17	0.00	0.00	32.63	17.38
	HARDWARE										
NAS	Apple (H)	AAPL	27.38	26.63	-0.75	-2.74	-	0.00	0.00	31.63	12.75
NYS	Compaq	CPQ	28.06	27.38	-0.69	-2.45	29	0.10	0.37	39.75	19.13
NYS	Digital Equipment	DEC	55.75	55.13	-0.63	-1.12	16	0.00	0.00	62.63	33.75
NAS	Dell (H)	DELL	80.75	82.41	1.66	2.05	57	0.00	0.00	98.50	24.88
NYS	Gateway 2000 (H)	GTW	58.81	45.06	-13.75	-23.38	60	0.00	0.00	59.25	25.06
NYS	Hewlett-Packard (H)	HWP	75.38	62.31	-13.06	-17.33	22	0.60	0.96	82.38	50.13
NYS	IBM (H)	IBM	115.88	117.50	1.63	1.40	20	0.90	0.77	129.31	81.75
NYS	Silicon Graphics	SGI	13.06	12.00	-1.06	-8.13	-	0.00	0.00	30.31	10.94
NAS	Sun Microsystems	SUNW	41.19	40.06	-1.13	-2.73	22	0.00	0.00	53.31	30.38
NYS	Tandy	TAN	49.75	44.25	-5.50	-11.06	25	0.40	0.90	53.25	26.13
NYS	Xerox (H)	XRX	113.50	102.88	-10.63	-9.36	28	1.40	1.36	115.00	65.50
	CPUs										
NYS	Advanced Micro Devices	AMD	27.75	19.56	-8.19	-29.50	-	0.00	0.00	43.63	17.13
NYS	Cypress Semiconductor	CY	10.00	8.56	-1.44	-14.38	-	0.00	0.00	18.94	7.38
NAS	Intel	INTC	80.81	71.44	-9.38	-11.60	20	0.10	0.14	102.00	67.38
NYS	LSI Logic	LSI	27.13	21.31	-5.81	-21.43	20	0.00	0.00	46.88	18.63
NYS	Motorola	MOT	55.75	53.00	-2.75	-4.93	31	0.50	0.94	90.50	52.00
	COMMUNICATIONS										
NAS	3Com (L)	COMS	34.25	25.38	-8.88	-25.91	41	0.00	0.00	59.69	25.38
NYS	AT&T	T	60.13	60.88	0.75	1.25	21	1.30	2.14	68.50	34.00
NYS	BellSouth Corp. (H)	BLS	64.19	64.50	0.31	0.49	19	1.40	2.17	69.38	43.31
NAS	Cisco (H)	CSCO	73.25	75.63	2.38	3.24	80	0.00	0.00	81.50	41.69
NAS	MCI (H)	MCIC	50.31	53.47	3.16	6.27	255	0.10	0.19	54.19	27.31
NYS	Northern Telecom (H)	NT	60.88	64.00	3.13	5.13	52	0.30	0.47	69.25	39.69
	INTERNET										
NAS	EarthLink	ELNK	70.94	54.50	-16.44	-23.17	-	0.00	0.00	77.00	10.00
NAS	Netscape	NSCP	27.31	24.50	-2.81	-10.30	-	0.00	0.00	49.50	14.88
NAS	Yahoo	YHOO	118.94	109.50	-9.44	-7.93	-	0.00	0.00	129.63	20.63
	MEDIA										
NYS	Disney (H)	DIS	124.56	113.25	-11.31	-9.08	36	0.60	0.53	128.38	73.81
NAS	TCI (H)	TCOMA	32.25	34.31	2.06	6.40	-	0.00	0.00	36.69	14.13

KEY: NYS=NEW YORK ASE=AMERICAN NAS=NASDAQ
(H)=NEW HIGH REACHED IN PERIOD (L)=NEW LOW REACHED IN PERIOD

MARKET DIARY:

ADVANCES	10
DECLINES	27
UNCHANGED	0
NEW HIGHS	15
NEW LOWS	2

MOST ACTIVE ISSUES:

LARGEST DOLLAR GAINER	MCI	$ 3.16
LARGEST DOLLAR LOSER	Earth Link	$ -16.44
LARGEST PERCENTAGE GAINER	TCI	6.40 %
LARGEST PERCENTAGE LOSER	Informix	-31.01 %

	CLOSE 04/30/98	CLOSE 05/29/98	NET CHANGE IN PERIOD	PERCENT CHANGE IN PERIOD
MICROTIMES STOCK INDEX	12934.83	12300.89	-633.95	-4.90
DOW JONES INDUSTRIAL AVERAGE	9063.37	8899.95	-163.42	-1.80
STANDARD & POOR'S 500 INDEX	1111.77	1090.82	-20.95	-1.88
N.Y.S.E. COMPOSITE	577.37	565.28	-12.09	-2.09
NASDAQ COMPOSITE	1868.41	1778.87	-89.54	-4.79

CLOSING QUOTES FOR GRAPH:

DATE	MICRO TIMES	DOW JONES
10/16/97	10985.85	7938.88
12/10/97	10922.72	7978.79
01/14/98	10813.50	7784.69
02/05/98	11808.05	8117.25
03/05/98	11573.81	8445.08
03/31/98	12466.06	8799.81
04/30/98	12934.83	9063.37
05/29/98	12300.89	8899.95

Source: Nordby International Inc. (*www.nordby.com*), Boulder, CO.
This information is based on sources believed to be reliable, and while extensive efforts are made to assure its accuracy, no guarantees can be made. Nordby International assumes no liability for any inaccuracies. For information on Nordby's customized financial research services, call (303)938-1877.

The national indices headed south last month, as several factors contributed to the period's poor performance. The national indices were hampered last month by the possibility of an interest rate increase, re-emerging Asian jitters, and reports that several companies would report weaker than expected earnings. The Dow Jones Industrial Average retreated 163.42 points, or -1.80%, to close at 8899.95. In similar fashion, the S&P 500 slide 20.95 points, or -1.88%, to a monthly close of 1090.82.

The *MicroTimes* Stock Index followed the national indices southerly trek, reversing last month's strong performance. Our index slipped -4.90%, or 633.95 points, to close the monthly trading period at 12300.89. In our index, declining issues outpaced advancers by a 27-to-10 count, and fifteen companies reached annual highs versus two that fell to a 52-week low.

Turning To Stocks In The Accompanying Table

IBM turned in a strong month, after CEO Louis Gerstner told analysts to expect double-digit revenue growth in the next several years despite the computer company's recently reported lower-than-expected revenue growth. Shares of the company jumped 1.40%, or $1.63 per share, to a closing price of $117.50 on the announcement. IBM's stock also rode the wave of a rating increase last month, after Bear Stearns raised its rating on the company to "buy" from "attractive."

Shares of Novell moved higher after the company posted strong second quarter financial results. During the monthly trading session, Novell watched its stock increase 5.00% to a closing price of $10.50 per share. The company reported revenue of $262 million for its second fiscal quarter ended April 30, 1998, compared with $252 million in the first quarter of 1998. Second quarter net income was $19 million, up $5 million from the first quarter of 1998, and earnings on a diluted basis were $0.05 per share. "Novell's recovery plan is working," said Dr. Eric Schmidt, chairman and CEO of Novell.

EarthLink Network's stock plummeted after the company's stock was downgraded. Shares of EarthLink fell -23.17%, or $16.44 per share, to a closing price of $54.50. EVEREN Securities reported that it lowered its rating on shares of the company to I'l Market Perform from IT Outperform. ◆

Proven Technology since 1990

We Are Price Competitive with Complete After-Service Support

FREE
$250 value Scanner for first-time corporate buyer with $6,995.00 or more purchase.

Proven Network

Pre-Configured 1 Server & 4 Workstations

Includes:

1 Proven Server
* Pentium® 233MHz Processor (FIC MB, 512K Cache)
* 32MB EDO Memory
* 3.2GB U-IDE Drive
* 1.44 FD, 104KB
* Mid-Tower Case
* Video Card (PCI 1-MB)
* 14" Monitor

4 Proven Workstations
* Pentium® 200MHz MMX (FIC MB, 512K Cache)
* 16MB EDO Memory
* 3.2GB U-IDE Drive
* 1.44 FD
* 104 Keyboard
* MS-Mouse
* Mini-Tower Case
* Video Card (PCI 1-MB)
* 14" Monitor
* Windows 95

Networking Accessories
* Ethernet hub - 5 ports
* 5 Ethernet Cards (NE2000)
* 5-10-Base-T Patch Cables (6' Long)

Novell Certified NetWare Engineer

Novell NetWare 4.11 5-user For Small Business $3862

Microsoft NT Server 5-user License, Mouse & CD-ROM for Server . . $3916

PROVEN FULLY FUNCTIONAL NOVELL SERVER 5-user $1007

PROVEN FULLY FUNCTIONAL NT SERVER 5-user $1062

(Server hardware configuration is the same as the Proven server above)

PROVEN 4100 SYSTEM

- PII-400MHz
- 128MB SDRAM
- Adaptec 2940 UW SCSI
- 4.5GB UW SCSI
- 1.44 FD, 104KB, mouse
- Diamond GL1000 PRO AGP w/8MB
- MID ATX TOWER
- 24X IDE CDROM
- 17" .27mm MONITOR
- WIN95 Installed

$2680

Additional Networking Products

Networking Products:

Intel 10/100 TP . . . . . $LOW
3Com Etherlink 3C905 10/100TX . . . . . $LOW
NE2000 Comp. Ethernet NIC . . . . . $LOW
Ethernet Hub:
5-port Ethernet Hub-Lynksys (1 BNC, 1 AUI) $45
8-port Ethernet Hub-Lynksys (1 BNC) $65
20-port Ethernet Hub-Lynksys $149
24-port 10/100 Auto-sensing Ethernet Hub-Lynksys $679
Smart UPS 1000Net . . . . . $LOW
Smart UPS 700Net . . . . . $LOW

ISDN:

3Com Impact IQ . . . . . $LOW
Motorola Bit-Surfer Pro . . . . . $LOW
US Robotics Courier I-Modem . . . . . $LOW

Router:

Ascend Pipeline 50 U-interface w/ NT-1 . . . . . $CALL
Cisco 1601 . . . . . $CALL
Cisco 1602 . . . . . $CALL
Cisco 2524 . . . . . $CALL
HP JetDirect Enet 10BaseT . . . . . $LOW
Intel Print Server NetPort Express . . . . . $GREAT

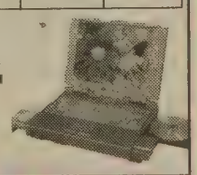
Backup:

ArcServe NT or Novell . . . . . $CALL
Backup Exec NT or Novell . . . . . $CALL
Legato Backup Software . . . . . $CALL
HP 81-8GB DAT SCSI . . . . . $CALL
HP 5000I-4GB DAT SCSI . . . . . $CALL
Seagate 24GB DAT SCSI . . . . . $CALL
Digital DLT 4500 (100GB/200GB) . . . . . $CALL
Microtest 12X/7Bay/7Dr CD-ROM Tower . . . . $CALL

We Also Carry These Very Competitively Priced Notebooks

Brand Name & Model	CPU	RAM	HDD	CD-ROM	COLOR	MODEM	PRICE
Hitachi 5280	233MMX	32MB	3.2GB	20X	DUAL SCAN	56K	$2095
Hitachi 5270	200MMX	32MB	2.1GB	20X	DUAL SCAN	56K	$1775
Fujitsu675TX	200MMX	32MB	3.2GB	20X	Active Matrix	56K	$3165
IBM560E	166MMX	16MB	2.1GB	—	Active Matrix	—	$2088
IBM380XD	PII-233	32MB	4.0GB	24X	DUAL SCAN	—	$2795

Acer HITACHI HEWLETT PACKARD
IBM® FUJITSU TOSHIBA



Authorized Reseller

hp IBM Microsoft Windows NT Server ASCEND 3Com® Cisco Systems

408-946-3838
Fax: 408-946-2900
491 Sinclair Frontage Rd.
Milpitas, CA 95035
Email: sales@ptinc.com

Terms: *Prices/availability are subject to change • No surcharge for Visa/Mastercard • Company terms on credit approval • Not responsible for typos

PROVEN TECHNOLOGY 408-946-3838 CORPORATE NETWORKING CONSULTANTS

Quality Systems @ Low Prices

"For overall performance, design and configuration, the *InfoGOLD* takes the GOLD."

EDITORS' AWARD

Monthly System Special

InfoGOLD Complete Multimedia system #4400

Intel Pentium MMX *200Mhz: $899 /233Mhz MMX: $949*

- 512K Pipeline CACHE
- 32MB HIGH SPEED EDO RAM
- ASUS SYSTEMBOARD/ INTEL CHIPSET
- PCI LOCAL BUS, FLASH PnP BIOS
- 1.44MB TEAC FLOPPY DRIVE
- CPU HEATSINK WITH COOLING FAN
- PCI ATI 3D VIDEO CARD W/ 2MB RAM MPEG
- 3.2 GB QUANTUM HARD DISK DRIVE
- 15" S-VGA IMPRESSION 5PLUS MONITOR
- 32X SPEED TOSHIBA CD-ROM DRIVE
- SOUNDBLASTER SOUND CARD & AMP. STEREO SPEAKERS
- CUSTOM MID SIZE TOWER CASE WITH FANS
- CPU COOLING FAN WITH HEATSINK
- 104 WIN'95 ENHANCED KEYBOARD
- LOGITECH SERIAL MOUSE

InfoGOLD Business Workstation

With Intel Pentium II 233Mhz MMX CPU: $1,349

With Intel Pentium II 266Mhz MMX CPU: $1,449

- 32MB DIMM HIGH SPEED RAM
- 6.4GB HARD DISK DRIVE
- 4MB ATI VIDEO CARD 3D MPEG
- 32X Speed CD-ROM DRIVE
- 1.44MB FLOPPY DRIVE
- 104 WIN'95 PS/2 KEYBOARD
- ULTRA ATA DMA/33 ON-BOARD
- 15" S-VGA TRINITRON .25DPI MONITOR
- 2 USB PORTS, 2 PS/2, 2 SERIAL, 1PRLL
- SOUNBLASTER SOUND CARD
- AMPLIFIED STEREO SPEAKERS
- CUSTOM MID TOWER ATX WITH FANS
- MICROSOFT ERGO INTELLI PS/2 MOUSE
- CPU COOLING FAN WITH HEATSINK

Chembook Notebook Special $1,995

Model 9780 With Intel Pentium 200Mhz MMX CPU

- 12.1" TFT ACTIVE MATRIX COLOR DISPLAY
- 16MB EDO RAM, UPGRD. TO 128MB
- 4MB VIDEO RAM, MPEG
- 20x Speed CD ROM DRIVE
- 1.44MB FLOPPY DRIVE (REMOVABLE)
- DETACHABLE WIN'95 KEYBOARD
- BUILT-IN STEREO SOUND & SPEAKERS
- BUILT-IN MICROPHONE
- 2.1GB HARD DISK DRIVE
- FAST IrDA (InfraRed) PORT
- TWO PCMCIA TYPE II, III
- MICROSOFT WINDOWS 95
- FREE LEATHER CARRY CASE
- LITHIUM-ION BATTERY
- VIDEO IN AND VIDEO OUT
- OPTIONAL 33.6K FAX MODEM

Hewlett Packard Printer Specials

HP692C Inkjet Color With Photo Cartridge: $245.
HP720C Inkjet Color With Photo Cartridge: $295.
All other models are available at Great prices!

Award winning InfoGOLD NT Servers with Intel Pentium II Processors custom configured!

InfoGOLD
American Multisystems

1830 Houret Ct
Milpitas CA 95035

INTERNET: www.infogold.com
e-mail: infogold@infogold.com
CALL : 408.945.2296
FAX : 408.945.2299

Pentium is a trademark of Intel Corporation. Other Trademarks are property of their respective owners. Prices subject to change without notice. Not responsible for typos.

Letters

High-Tech Jobs: The Voice Of Experience

Thank you so much for the article "High-Tech Workers: What Shortage?" [*www.microtimes.com/178/olderworkers.html*]

It is high time that somebody articulated what we older workers have long realized, namely, that there is absolutely nothing that justifies putting many of us "out to pasture" merely because of our age, other than the fact that we (typically) have achieved a level of benefits, greater than new hires, through diligence.

Certainly, if there is a problem which causes intellectual failure, there can be some justification. However, bringing in more foreign workers when there are many US citizens unemployed in the same disciplines is unconscionable, and bespeaks a crass determination to increase the bottom line by rate busting.

—Jim Coppock

Sorry State Of Tech Support, Revisited

Paul Hoffman's column [*www.microtimes.com/178/insights.html*] and many others like it are present every time I open a computer magazine. These columns are coming to the party late, but they finally came.

Mr. Hoffman accurately describes the problem, as I experience it, of buggy software and getting help for it. It pleases me that Mr. Hoffman used the "S" word, as in "Selling buggy software is stealing from the customer."

The only issue he did not describe accurately is the amount of rage I feel toward vendors who sell me buggy software.

—Tom Rubens

Not A Friend Of Bill

First we were told, "What's good for Standard Oil is good for America." Next we were told, "What's good for General Motors is good for America." Now we are being told, "What's good for Microsoft is good for America."

This latest propaganda line is from the whiner-baby monopolist Bill Gates. Recently in an attempt to head off further investigations of Microsoft Corporation, he claimed that any delay in the release of his latest top-heavy software monstrosity, Windows 98, would damage the US economy. I guess in his eyes, the world does revolve around Redmond, Washington.

Does anyone have a serious need for another overblown, top-heavy, updated version of Windows 95? I doubt it. Windows 95 has over 15,000,000 lines of computer code in it. It is a memory hog; it is very unstable and it has a very awkward graphical interface to boot. (And you will have to boot and reboot and reboot again).

And what is this supposed "foreign competition" that Mr. Gates speaks of so darkly? The only "foreign" operating system that I can think of is Linux, the shareware variant of UNIX, which was created by Linus Torvalds of Finland. Linux is now in the public domain as shareware.

I suppose the real threat of the Linux operating system is that it is not greed-based proprietary, licensed software, unlike Windows, owned by the Microsoft Corporation. I guess that the concept of "sharing" is truly foreign to Mr. Gates.

I believe that it is breakup time for Microsoft. They are too big and too pushy for us to continue to allow them to dominate the growing world of Personal Computers and the Web/Internet.

—James K. Sayre

For more on this theme, see articles by Mitch Kapor and Jonathan E. in this issue.

FREE 15" Monitor, Color InkJet Printer & Software with the purchase of this great computer!

FREE Softwares:
- Lotus SmartSuite'97
- Panda Antivirus Protection
- Games

and more...
See store for details!

Microsoft Windows 95 Ready!

intel inside MMX pentium II

Panda Software

PCtown® uses name brand components to ensure top performance

266 MHz Pentium® II
with MMX™ technology
Home Computer
- Intel® Seattle SE440BX 100MHz B.S. Motherboard
- 32 MB 100MHz SDRAM 168Pin exp to 384MB
- 1.44 MB FDD, USB I/O port
- 3.1GB EIDE Hard Disk
- USB 2-16550 High speed serial & 1 Parallel Port
- 24X Enhanced CD-ROM Drive
- 104K Enhanced Keytronics PS/2 Keyboard
- Diamond Stealth 4000 AGP w/4MB SGRAM
- Mid Size ATX Tower case w/235w PS
- Logitech PS/2 Mouse & Pad
- 56.6K Fax/Modem w/Voice Mail
- Yamaha YM-715 Stereo Sound Built-in
- 60Watt Amplified Stereo Speakers
- Microsoft Windows® 95 OSR2
- **FREE 15" Monitor**
- **FREE Color Inkjet Printer**
- **FREE Software Package**

$1199.99

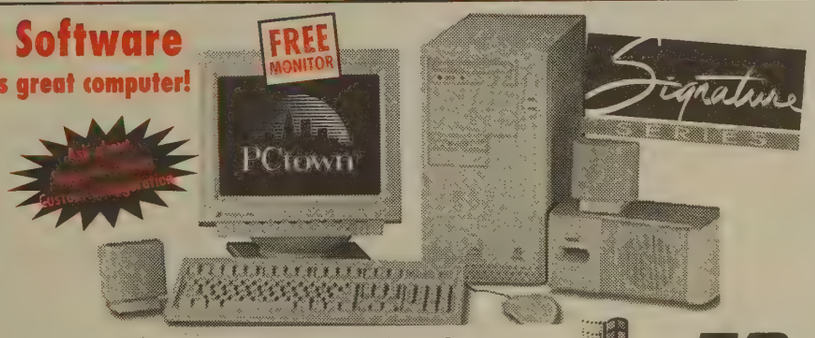
300 MHz Pentium® II
with MMX™ technology
Office Computer
- Intel® Seattle SE440BX 100MHz B.S. Motherboard
- 64MB 100MHz SDRAM 168Pin exp to 384MB
- 1.44 MB Floppy Disk Drive
- 4.3GB EIDE Hard Disk
- USB 2-16550 Serial & 1 Parallel Port
- 32X Enhanced CD-ROM Drive
- 104K Enhanced Keytronics PS/2 Keyboard
- ATI Xpert at Work AGP w/4MB SGRAM
- Mid Size ATX Tower case w/235w PS
- Logitech PS/2 Mouse & Mousepad
- 56.6 Fax/Modem w/Voice Mail
- Yamaha YM-715 Stereo Sound Built-in
- 60Watt Stereo Amplified Speaker
- Microsoft Windows® 95 OSR2
- **FREE 15" Monitor**
- **FREE Color Inkjet Printer**
- **FREE Software Package**

$1499.99

333 MHz Pentium® II
with MMX™ technology
Ultimate Computer
- Intel® Atlanta AL440LX Motherboard
- 64MB SDRAM exp to 384MB
- 1.44 MB Floppy Disk Drive
- 6.4GB Enhanced IDE Hard Disk
- USB 2-16550 Serial & 1 Parallel Port
- 32X Enhanced IDE CD-ROM Drive
- 104K Enhanced PS/2 Keyboard
- Diamond Fire GL 1000 Pro AGP w/8MB
- Mid Size ATX Tower case w/235w PS
- Microsoft IntellimousePS/2 Mouse & Mousepad
- 56.6 Fax/Modem w/Voice Mail
- Yamaha YM-715 Stereo Sound
- Altec Lansing Speaker w/Subwoofer
- Microsoft Windows® 95 OSR2
- Iomega Internal EIDE Zip Drive
- **FREE 15" Monitor**
- **FREE Color Inkjet Printer**
- **FREE Software Package**

$1799.99

FREE 17" Monitor & Software with the purchase of this great computer!



400 MHz Pentium® II
with MMX™ technology
Multimedia Computer
- Intel® Seattle SE440BX 100MHz B.S.Motherboard
- 64MB 100MHz SDRAM 168Pin exp to 384MB
- 1.44 MB Floppy Disk Drive
- 8.4 GB Ultra DMA IDE Hard Disk
- USB, 2-16550 Serial & 1 Parallel Port.
- Dxr2 DVD ROM Drive Kit
- 104K Enhanced Keytronics PS/2 Keyboard
- Mid Size ATX Tower Case w/235PS
- ATI Xpert@Work AGP w/8MB SGRAM
- Microsoft IntellimousePS/2 Mouse & Mousepad
- 56.6 Fax/Modem w/Voice Mail X2 Comp
- Built-in Crystal PCI Stereo Sound
- Altec Lansing Stereo Speakers w/Subwoofer
- Microsoft Windows® 95 OSR2
- **FREE 17" Monitor**
- **FREE Software Package**

$2299.99

Computown™ Upgrade Specials
with purchase of any PCtown® system

Microsoft® NT 4.0 WorkStation	$99.99
Microsoft® Keyboard	$29.99
Microsoft® Intellimouse	$16.99
Iomega IDE Zip Drive	$99.99
32MB Dimm Memory	$49.99

Panda Software

Microsoft Windows 95 Ready!

DVD VIDEO

intel inside MMX pentium II

iomega

DVD ROM

PCtown® uses name brand components to ensure top performance

MOUNTAIN VIEW
PRICE & AVAILABILITY
(800) 498-8696
RETAIL SALES
(650) 962-8696
CORPORATE SALES
(650) 967-8999
REPAIR & SERVICE
(650) 938-8324
Mon - Fri 9am to 7pm
Sat - Sun 10am to 5pm
2065 West El Camino Real

SAN FRANCISCO
PRICE & AVAILABILITY
(800) 655-8696
RETAIL SALES
(415) 956-8696
CORPORATE SALES
(415) 956-1777
REPAIR & SERVICE
(415) 982-8324
710 Market Street

PLEASANT HILL
PRICE & AVAILABILITY
(800) 553-8696
SALES & SERVICE
(925) 682-8696
1525 Contra Costa Blvd

SAN JOSE
PRICE & AVAILABILITY
(800) 897-0771
SALES & SERVICE
(408) 275-8696
CORPORATE SALES
(408) 383-9050
780 Montague Expressway/O'Toole

NOVATO
NETWORKING, SALES & SERVICE
(415) 899-8696
(707) 588-8696
140 Vintage Way, Suite G12
Vintage Oaks Mall

The Intel Inside logo and Pentium are registered trademark and MMX is a trademarks of Intel Corporation. IBM is a registered trademark of International Business Machines Corporation. PCtown® is registered in the U.S. Patent and Trademark Office. The Energy Star emblem does not represent EPA endorsement of any product or service. Windows® is a registered trademarks of Microsoft Corporation. Computown is not responsible for typographical errors. Limited to stock on hand. Prices/specifications are subject to change without notice. Prices may vary from store to store. All other marks are trademarks or registered trademarks of the products with which the marks are associated. This waiver applies to all Computown advertisements. *Low price guarantee and price matching policy refer to authorized dealers only, on in-stock, new in-the-box products. Competitor's advertisement must be presented. Prices change daily, please call for current pricing. See store for details.

Prices good at Mountain View store only.
Expires on July 13, 1998. While supplies last.
Online: www.computown.com

For your convenience, we accept

VISA MasterCard AMERICAN EXPRESS CHECK

FREE PARKING — 1 hour validated parking with purchase @ SF 5th & Mission Garage or Hearst Parking Garage

OPEN 7 DAYS — San Francisco Mountain View

PRICE MATCH — Upon salesperson's verifications

Computown™

Desktop Computers

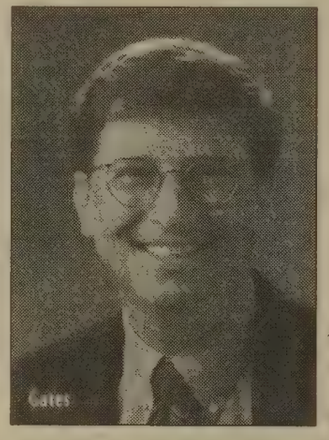
High-Tech Hypocrisy About Government

Taking On Microsoft

By Mitchell Kapor

With Microsoft's dominance, vast areas of the product market are barren zones where venture capitalists and entrepreneurs fear to tread because Microsoft has staked a claim or is seen as likely to do so.

In the mid-1980s, during my tenure at Lotus, I was, I believe, the first person to publicly compare Microsoft to Standard Oil. Both companies sought and used monopoly control over a new industry critical to the nation's economy. And both were headed by men—John D. Rockefeller Sr. and Bill Gates—who would stop at virtually nothing to gain what they sought. Back then no one took the comparison seriously—except Bill Gates himself, who made it clear to me how irate he was about it.



Like Gates, I believe in and have profited from the free market. But I'm also a techno-realist, which means that unlike many of my colleagues in the high-tech industry, I don't automatically see Government as the enemy of technological progress. Such views are all too fashionable in Silicon Valley, where the prospect of Government intervention causes a bad case of heartburn.

What my colleagues need to see is that the market cannot work unless our society sets rules of play and enforces them. Microsoft has benefited from the stability and opportunities provided by those rules, but it has been flouting them as well. The antitrust suits filed last week against Microsoft are therefore regrettable but necessary.

Despite all of Gates' talk about the right to innovate, his company uses its power to limit consumer choice and impede a free marketplace. Only the Government has the ability to take on Microsoft, and the Justice Department's antitrust chief, Joel Klein, has done his homework. He's a pragmatist, not a crusader.

Klein understands that the real threat to entrepreneurial innovation is Microsoft's anticompetitive arrogance. Great discoveries in computing often come from small startup companies. Yet with Microsoft's dominance, vast areas of the product market—including but hardly limited to basic applications like word processors and spreadsheets—are barren zones where venture capitalists and entrepreneurs fear to tread because Microsoft has staked a claim or is seen as likely to do so. It is a sad but telling fact that in the high-tech field, virtually no business plan will be financed today without a convincing answer to the question of what is to be done about competition from Microsoft.

The Government also recognizes that Microsoft's dominance will only intensify as the Internet becomes an integral part of mainstream culture. The browser war is just the beginning. Microsoft claims *droit du seigneur* in any area of computing that becomes strategically important—voice recognition, home appliances, auto navigation and so on.

It's unfortunate that Microsoft is so aggressively self-interested that an external check is necessary. I would prefer to live in and help create a society in which self-regulation makes antitrust suits unnecessary. But until such a business ethos prevails, we must rely on other means.

Ultimately, the extent of the Government-mandated reform may depend on Microsoft's willingness to begin acting like a more socially responsible industry leader. To the extent that the company remains recalcitrant, it's likely that radical solutions will gain favor.

The most drastic action, of course, would be to break Microsoft up into a series of Baby Bills, separating operating systems from applications and from content and services. Today that seems like overkill, but in the coming years, short of a sincere change of heart by Gates, it may well become the preferred solution. ◆

Copyright © 1998 by Mitchell Kapor. This editorial first appeared in the New York Times *on May 26, 1998, and is reprinted by permission of the author.*

A Comfortable Place to Buy a Custom System Direct from a Silicon Valley Source.

YOUR ONE-STOP COMPUTER SOURCE

Custom-Built Quality Systems

GENIUS Color Flatbed Scanner **$89**

FREE One Month Unlimited Internet Access e-mail w/system purchase

IOMEGA 100MB SCSI int. Zip Drive **$89**

Best Customer Service

VALUE SYSTEM

- Mini-Tower Case w/250W PS
- ASUS SP97 PCI 75-233MHz M/B
- 512K L2 Pipeline Burst Cache
- AMD K6-200MHz MMX CPU
- Ball Bearing CPU Fan & Heatsink
- 8MB EDO RAM, 60ns Memory
- TEAC 1.44MB Floppy Drive
- 420MB EIDE Hard Drive
- 1-4MB PCI SVGA
- 104 Enhanced Keyboard
- PS/2 Mouse
- 14" SVGA Digital Monitor, .28, NI

$449

AMD K6 233MHz MMX. $469

VALUE MULTIMEDIA SYSTEM

- Mini-Tower Case w/250W PS
- ASUS SP97 PCI 75-233MHz M/B
- 512K L2 Pipeline Burst Cache
- AMD K6-200MHz MMX CPU
- Ball Bearing CPU Fan & Heatsink
- 16MB EDO RAM, 60ns Memory
- TEAC 1.44MB Floppy Drive
- 2.1GB EIDE Hard Drive Ultra DMA
- 1-4MB PCI SVGA
- 16X IDE CD-ROM
- Yamaha 3D 16-Bit Sound Card
- Deluxe Speakers
- 104 Enhanced Keyboard
- PS/2 Mouse
- 14" SVGA Digital Monitor, .28, NI

$589

AMD K6 233MHz MMX. $609

HOME MULTIMEDIA SYSTEM

- Mini-Tower Case w/250W PS
- Intel Triton 430TX 75-233MHz M/B
- 512K L2 Pipeline Burst Cache
- Intel P-133MHz CPU
- Ball Bearing CPU Fan & Heatsink
- 32MB SDRAM, 10ns Memory
- TEAC 1.44MB Floppy Drive
- 3.2GB EIDE Hard Drive Ultra DMA
- S3 Virge 3D 4MB Video
- 24X IDE CD-ROM
- Yamaha 3D 16-Bit Sound Card
- 33.6 Fax/Modem/Voice
- 100-Watt Amplified Speakers
- Mitsumi 104 Keyboard
- Internet PS/2 Net Mouse
- 15" SVGA Digital Monitor, .28

$749

P-166MHz MMX. $779
P-200MHz MMX. $799
P-233MHz MMX $829
AMD K6-200MHz $759
AMD K6-233MHz $779

PROFESSIONAL MULTIMEDIA SYSTEM

- Mid-Tower ATX w/250W PS
- ASUS TX97 XE Triton TX 75-233MHz M/B
- 512K L2 Pipeline Burst Cache
- Intel P-166 MMX CPU
- 32MB SDRAM 10ns Memory
- TEAC 1.44MB Floppy Drive
- 4.3GB EIDE Ultra DMA Hard Drive
- Diamond Fire GL 1000 PRO PCI 4MB
- 24X IDE CD-ROM
- Sound Blaster 64 AWE
- Diamond Supra 56.6K Fax/Modem/Voice V.90, PCI
- NEC Amplified Speakers
- Keytronics 104 Keyboard
- Microsoft PS/2 Mouse
- 15" SVGA Digital Monitor, .28

$1019

P-200MHz MMX $1039
P-233MHz MMX $1069
AMD K6-200/233MHz. . . . $999/1019
AMD K6-266MHz. $1049
AMD K6-300MHz. $1089

PENTIUM® II POWER SYSTEM

Mid-Tower ATX w/250W PS
ASUS P2 L97 440LX Motherboard
Intel Pentium® II 233MHz CPU
Ball Bearing CPU Fans & Heatsink
64MB SDRAM Memory 10ns
TEAC 1.44MB Floppy Drive
4.3GB Ultra DMA Hard Drive
Diamond Fire GL 1000 Pro AGP 4MB
Toshiba 32X IDE CD-ROM
Sound Blaster 64 AWE
Diamond Supra 56.6K Fax/Modem/Voice V.90, PCI
NEC Amplified Speakers
Keytronics 104 Keyboard
Microsoft PS/2 Mouse
17" SVGA Monitor, .25 Digital

$1389

INTEL P-II 266MHz. $1449
INTEL P-II 300MHz. $1589
INTEL P-II 333MHz. $1699
INTEL P-II 266MHz Celeron $1339

PENTIUM® II POWER SCSI SYSTEM

Mid-Tower ATX w/250W PS
ASUS P2 L97-S 440LX Motherboard
On Board Ultra-Wide SCSI Controller
Intel Pentium® II 233MHz CPU
Ball Bearing CPU Fan & Heatsink
64MB SDRAM Memory 10ns
TEAC 1.44MB Floppy Drive
4.3GB Ultra-Wide SCSI Hard Drive
Diamond Fire GL 1000 Pro AGP 4MB
Toshiba 32X SCSI CD-ROM
Sound Blaster 64 AWE
Diamond Supra 56.6K Fax/Modem/Voice V.90, PCI
NEC Amplified Speakers
Keytronics 104 Keyboard
Microsoft PS/2 Mouse
17" SVGA Monitor, .25 Digital

$1629

INTEL P-II 266MHz. $1689
INTEL P-II 300MHz. $1829
INTEL P-II 333MHz. $1939

DUAL PENTIUM® II POWER SCSI SYSTEM

Mid-Tower ATX w/250W PS
ASUS P2L97-DS 440LX Motherboard
Dual Processor on Board
Ultra Wide SCSI
Dual Pentium® II 233MHz CPU
Dual Ball Bearing CPU Fan & Heatsink
128MB SDRAM 10ns
Teac 1.44MB Floppy Drive
Dual 4.3GB Ultra-wide SCSI Hard Drive
Diamond Fire GL 1000 Pro AGP 8MB
Toshiba 32X SCSI CD-ROM
Sound Blaster 64 AWE
Diamond Supra 56.6K Fax/Modem/Voice V.90, PCI
NEC Amplified Speakers
Keytronics 104 Keyboard
Microsoft PS/2 Mouse
17" SVGA Monitor, .25 Digital

$2349

DUAL INTEL P-II 266MHz $2459
DUAL INTEL P-II 300MHz $2729
DUAL INTEL P-II 333MHz $2949

PENTIUM® II BX POWER SYSTEM

Mid-Tower ATX w/250W BX PS
ASUS P2B 440BX Motherboard
Intel Pentium® II 350MHz CPU
Ball Bearing CPU Fan & Heatsink
128MB SDRAM PC100 Memory
Teac 1.44MB Floppy Drive
6.4GB Ultra DMA Hard Drive
Diamond Fire GL1000 Pro AGP 8MB
Toshiba 32X IDE CD-ROM
Sound Blaster 64 AWE
Diamond Supra 56.6K Fax/Modem/Voice V.90, PCI
NEC Amplified Speakers
Keytronics 104 Keyboard
Microsoft PS/2 Mouse
17" SVGA Monitor, .25 Digital

350/400MHz NOW AVAILABLE w/PC-100 Memory

$2079

INTEL P-II 400MHz. $2299

CONSIDER THESE UPGRADES

- Operating System – DOS/Windows 3.1, Windows 95, Windows NT, Windows 98
- Bundle Softwares – Office 97 Pro, Office 97 Small Business Edition, Home Essentials, anti virus scan, Family, Business, Games & Educational
- 19" or Larger Monitors
- LS-120 120MB Floppy Drive
- Zip/Jazz Drives IDE/SCSI
- Tape Backup
- 56.6K X2, Flex or V.90
- SCSI Option or Raid Controller
- Network Card/Hub/Accessories
- Digital Video Camera (USB) Video Capture & Conferencing
- Quiet & Extra Cool Cases
- Industrial & Rack Mounted PC
- Internet Hook-Up
- DVD
- CD Recorders/Rewritables

OTHER SERVICES

- System Diagnostics & Repair
- Parts & Upgrades
- Web Page Design
- On-Site Networking Consultants
- Hardware & Software Installations
- Laser Printer & Monitor Repair Service

ASUS · CREATIVE · SONY · HEWLETT PACKARD · Seagate · matrox · ViewSonic · Quantum · WESTERN DIGITAL · intel · Cyrix · FUJITSU · 3Com

MAG INNOVISION · US Robotics · Designed for Microsoft Windows 95 · Microsoft WindowsNT · DIAMOND · AMD · adaptec

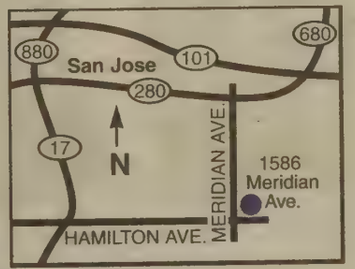
Open Late:
Mon.-Fri. 10-8
Sat. 10-6

UPS · FedEx · DISCOVER · VISA · MasterCard · ATM

POs Welcome

MERIDIAN COMPUTER SYSTEMS

1586 Meridian Ave. • San Jose, CA 95125
Phone: 408-979-9084 • Fax: 408-979-9086
http://www.mericomp.com • E-Mail info@mericomp.com



Not responsible for typographical errors. Prices and availability subject to change without notice. All other brands and trademarks are properties of their respective owners.

A Cell Phone For Email And Scheduling

AT&T PocketNet Service Lets You Check Your Email—And Lots More—On A Cell Phone

By Ed Kahn

If all I want to do is read and respond to the most important messages in my email, the smaller the device, the better as far as I am concerned.

As time goes by, we have become increasingly dependent upon our email. When I am out of town, I need a way to check on my electronic mail at least once a day. Not too long ago, I routinely carried a portable computer for just this purpose. In the last year, several smaller computers have been introduced that greatly simplify keeping in touch.

If I plan to do serious work on a computer when I am on-the-road, there is no substitute for a notebook computer. But if all I want to do is read and respond to the most important messages in my email, the smaller the device, the better as far as I am concerned. AT&T recently introduced AT&T PocketNet Service, which lets you check your email—and lots more—on a cell phone. For this service, which costs $29.99 per month, AT&T does not actually make the phones that support the service.

Currently, there are two cell phones that support the PocketNet Service: the Samsung Duetté ($299) and the Mitsubishi MobileAccess 120 ($299). (Both are available through AT&T.) Although I tested the Mitsubishi model, they offer nearly identical features. Both phones provide cell phone service through any provider you choose. The purpose of this review is not to discuss the cell phones aside from indicating that the model I tested worked as expected. The purpose of this review is to discuss this service as an alternative to a portable computer when you are on-the-go, but don't really need all of the features or weight of a laptop computer.

These tiny phones are powerhouses. They truly illustrate the varied power of computer chips, for these phones allow you to send and receive email, check phone numbers around the country, read news from ABC, see sports information from ESPN, check on your personal calendar, enter the information for phone calls you need to make for the day and then automatically dial the numbers, print out messages you receive, find directions from where you are to where you want to go, and the list goes on and on. In short, while you don't have access to the Web, you do have access to lots of information found on popular Web sites.

When you subscribe to the PocketNet Service, you will get an email address and password to access a Web site from your desktop or laptop computer. This allows you to enter information onto your personal Web site, which you can then access from your cell phone. You can also enter data from the cell phone that will be available from your desktop computer after a simple synchronization. This means you can keep a calendar on your desktop computer and review it from the cell phone.

While all of this is convenient, the standard PocketNet Service does not let you download your address and contact files onto the Web site. But AT&T has worked out an arrangement with Puma Technology. Puma publishes Intellisync software ($69.99) for the AT&T PocketNet Service. What this software does is perfectly synchronize the most popular PIMs (Personal Information Managers) with the PocketNet Service. This means if you use Microsoft Schedule or Microsoft Outlook, Lotus Organizer, Symantec ACT!, Starfish Sidekick or any of the other popular PIMs, you can effortlessly synchronize these program with PocketNet. This effectively extends your PIM into the field. You can check your schedule, access phone numbers and addresses, and consult to-do lists and such from your cell phone.

The phone itself is quite sophisticated and is already set up for both voice phone service and data service. You can receive a phone call while you are transmitting data. Whatever you are doing, there are extensive menus that let you move quickly from function to function. When you are in data mode, you can easily navigate from place to place. While gobs of information

The Best Prices & Service Since 1992

LIFETIME Support

ACADEMIC Reseller Microsoft Symantec

48-HOUR Service Guaranteed

Upgrades & Repairs for all Notebooks

NETWORKING SOLUTIONS

HEWLETT PACKARD Authorized Dealer

Complete MultiMedia Systems at Blowout Prices. We use only name brand components.

DESKTOPS

SUPER SYSTEM with Intel Pentium® II

- Intel Pentium® II Processor with MMX Technology
- Motherboard w/440LX Intel® Chipset
- 4.3GB Ultra DMA Hard Drive
- 32MB SDRAM
- Toshiba 24X CD-ROM
- 56K Fax/Modem
- 3D Sound Card •4MB Video RAM
- 15" SVGA Monitor
- Mini-Tower Case
- Win95 Keyboard, Mouse

Plus Much More

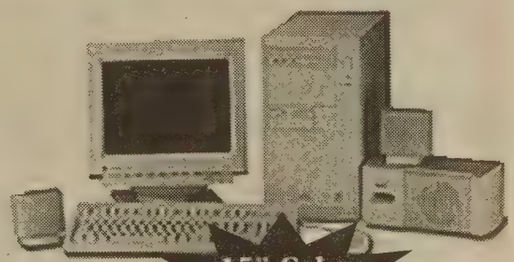
P-II Celeron™ 266 . . . . . $925
P-II 233MHz $949
P-II 266MHz $999
P-II 300MHz $1099
P-II 400MHz $1649

PERFORMANCE SYSTEM w/Intel Pentium® Processor

- Intel Pentium® Processor with MMX Technology
- Motherboard w/TX Intel® Chipset
- 3.1GB Ultra DMA Hard Drive
- 32MB SDRAM
- Toshiba 24X CD-ROM
- 36.6K Fax/Modem
- 3D Sound Card
- 4MB Video RAM
- 15" SVGA Monitor
- Mini-Tower Case
- Win95 Keyboard, Mouse

Plus Much More

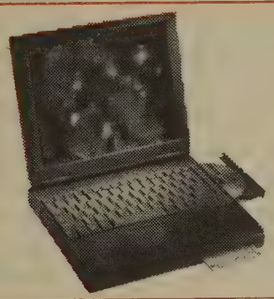
P-166MMX $729
P-200MMX $749
P-233MMX $779



15" Color Monitor Included

Call for Custom Configuration, Network Servers, Workstations!

NOTEBOOKS



Model 3300 Notebook

•233MHz Pentium® MMX
•32MB RAM
•2GB Hard Drive
•12.1" Active Color Display
•USB Port

Best Value $1385

Call For Upgrades & Options

Model CH9780 Notebook

•32MB RAM
•2GB Hard Drive •4MB Video
•14.1" Active Color Display
•USB Port

•Pentium® 233 . . . . $1999
•Pentium® II 266. . . $2819

Model AS6000 Notebook

•32MB RAM •2GB Hard Drive
•2MB Video
•13.3" Active Color Display •USB Port

•Pentium® 266 . . . . $2650
•Pentium® II 266. . . $2999

Model KP7200 Notebook

•233MHz Pentium® MMX
•Upgradable to Pentium® II
•32MB RAM •2GB Hard Drive
•4MB Video
•14.1"/15.1" Active Color Display

$1899/2599

DISCOUNT CENTER • SAVE BIG $$$!

Iomega Jaz Drive Ext. SCSI 1GB. **$239**
Syquest 1.5GB Drive, Parallel Port **$269**
Jaz Disk 1GB **$75**
PCMCIA 33.6K Fax/Modem **$45**
Practical Peripherals Internet Kit (33.6K Fax/modem w/Internet Software & Virus Scan) Lifetime Warranty **$65**
Xircom PCMCIA 28.8K Fax/Modem/Lan Combo Card 10BT/10B2, 5 Year Factory Warranty. **$185**
Portable Speakers & Microphone for Notebook Computers, Powered by PS/2 Port **$12**
Adaptec 2940 PCI SCSI Controller **$137**

Leasing and 0% Financing Available

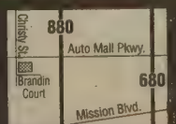
Cypress Computers

HEWLETT PACKARD Authorized Dealer

Visit Our Web Site: www.cypress-computer.com

SUNNYVALE
568 Weddell Drive, Suite 2
Sunnyvale, CA 94089
800-613-3540 • 408-541-0339
Fax 408-541-0169
e-mail: sunnyvale@cypress-computer.com

FREMONT
5171 Brandin Court
Fremont, CA 94538
800-728-6688 • 510-668-1330
Fax 510-668-1498
e-mail: fremont@cypress-computer.com



Hours:
M-F 9-6
Sat 10-12 & 1-4

VISA MasterCard

Prices subject to change without notice. Not responsible for typographical errors. All prices reflect cash prices.

FARSIO COMPUTERS

New PC Systems, Custom Built Systems, Upgrades, and Networking products

Pentium II 300 Multimedia $999

Motherboard PII INTEL 440LX chipset w/512 cache, 4PCI 3 ISA, 4 DIMMS, AGP, USB, ATX PII 233-333 $99

Motherboard INTEL 430TX w/512 Pent 75-233MMX, 4PCI, 3 ISA, 4 SIMMS, 2 DIMMS $77

PENTIUM II MULTIMEDIA SYSTEM

- Intel 440LX Chipset
- 512 Cache, AGP
- 2.1 Hard Drive
- 32MB SDRAM
- 4MB AGP
- 24X CD-ROM
- 56K Voice Fax Modem
- Yamaha 3D Sound
- Mid Tower ATX Designer Case w/235 PS
- 1.44 Floppy
- Keyboard, Mouse, Speakers
- WIN95 CD

$599

Pentium II 233/266 . . . . . $799/899
Pentium II 300/333 . . . . . $999/1099

MONTHLY SPECIALS

32X CD	$55
24X CD	$43
56K Voice, Fax, Modem	$55
Yamaha 3D Sound	$11
CPU	$CALL
MEMORY	$CALL

3275 Stevens Creek Blvd.
Suite #106
San Jose, CA 95117

(408) 296-7000 or Toll-Free: 877-769-7000

Hours: Mon.-Fri.: 10a.m. - 7p.m. • Sat.: 10a.m. - 6p.m. Sun.: 12p.m. - 5p.m.

Farsio Computers is not responsible for any typographical errors. Shipping, C.O.D. & Insurance are extra and non-refundable. 1-year warranty on new systems. All prices are subject to change without obligation or notice. No refunds or exchanges after 15 days. Non-defective returns subject to 15% restocking charge, provided returns are in original packaging and in resalable condition, with original invoice. ALL PRICES ARE FINAL ON DATE OF PURCHASE.

are available to you through the phone, the phone itself stores little more than an index that points to the right place on the Internet. The bookmark feature lets you mark any place that you want to use often.

Not surprisingly, the screen on the phone is actually quite small, measuring approx. 1" x 1.75." You might be wondering, "How you can read an email message on this tiny screen?" When you log on to check your email you are given a menu of new messages. To read a message, you scroll through it, which can be cumbersome. If message is from someone who knows you will be reading it through this service, they can embed up to six responses. In that way, all you need to do to reply is check one of the six responses. When you get a long message, you can fax it to any nearby fax machine with the push of a few buttons. Alternatively, you can forward the message to someone else or to your other email account. Likewise, you can easily have email sent to your regular email address forwarded to your PocketNet Service email address.

There are obviously a number of limitations to this service, but it points the way to a closer integration between desktop, laptop, and cellular computers. I found it quite convenient for getting a general idea of what was happening back at the office, but not for conducting extensive business through email. Sending messages is quite cumbersome. You "type" the messages using the telephone number pad. For "A" you press the 2 key once. For "B" you press the key twice and so on through the alphabet. Yes, it gets the job done, but makes you think long and hard about ways to condense the message.

This is an extremely powerful tool and despite its limitations, it will appeal to people who are in the field a lot and don't want to carry along a second computer. The cell phone will let you take care of important jobs in the field and leave the rest until you are back at a larger display and keyboard.

Resources:

AT&T PocketNet Service, $29.99/month
AT&T Wireless Service
10230 NE Points Dr.
Kirkland, WA 98033-7869
1-888-328-2288

Intellisync Software, $69.99
Puma Technology
2550 N. First St., Ste. 500
San Jose, CA 95131
1-800-774-PUMA
www.pumatech.com

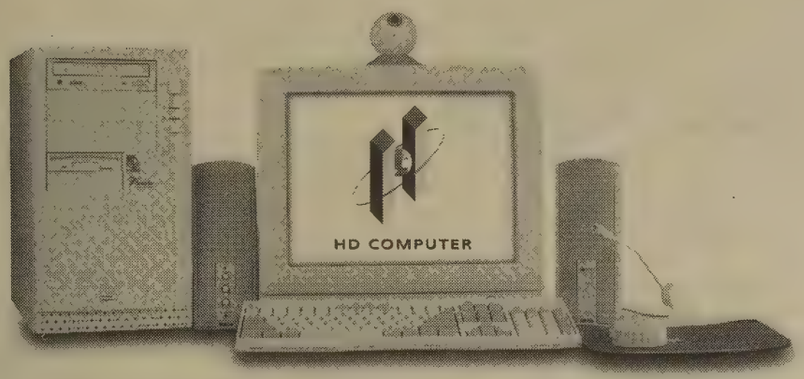
Computer of the Month

The IBM ThinkPad 600

These days, a new notebook computer from IBM is something to look forward to because they always incorporate a few new features that I haven't seen before. The newest ThinkPad 600 is a delight—it is sleek, lightweight, powerful, and features an innovative new TrackPoint.

The ThinkPad 600 comes in different configurations, starting at about $2800. I tested the top-of-the-line model, powered by an Intel Pentium II 266MHz Mobile processor. It comes standard with 32MB of SDRAM memory, but can be expanded all the way up to 160MB. The removable hard drive holds 4GB of data. It is 1.4" thick and weighs less than 5lbs. without its CD-ROM or floppy drive. With either of these, it still weighs just over 5lbs.

HD COMPUTER – BUILD TO ORDER



Find a Need–HD Can Fill It!

ViewSonic
See The Difference!™

E641 14" 1024 x 768 .28 NI	$184
E655 15" 1024 x 768 .28 NI	$254
15GA 15" 1280 x 1024 .28 NI Speaker Phone	$364
P665 15" 1280 x 1024 .27 NI	$274
EA771 17" 1280 x 1024 .28 NI PnP	$488
G771 17" 1280 x 1024 .27 NI	$434
P775 17" 1600 x 1280 .25 NI	$538
PT775 17" 1600 x 1280 .25 NI, Sonictron	$688
G790 19" 1600 x 1280 .26 NI	$798
G800 20" 1600 x 1280 .28 NI	$998
G810 21" 1600 x 1280 .25 NI	$1058
P810 21" 1600 x 1280 .25 NI	$1158
P815 21" 1800 x 1440 .25 NI	$1264
PT813 21" 1600 x 1280 .28 NI	$1284
29GA 29" 1280 x 1024 .75 stripe pitch	$1998

iiyama

VisionMaster Pro 17
17" (16.0" Viewable) 1600 x 1200 .25 ..... $568

VisionMaster 450
19" (18.0" Viewable) 1600 x 1200 .22x 14 ..... $778

VisionMaster Pro 500
21" (19.5" Viewable) 1800 x 1400 .28 ..... $1248

VisionMaster ProLite36
14.1" TFT LCD Flat Panel 1024 x 768 ..... $996

VisionMaster ProLite35
13.8" TFT LCD Flat Panel 1024 x 768 ..... $948

HEWLETT PACKARD

HP DESKJET 670	$199
HP DESKJET 692C	$244
HP DESKJET 720C	$298
HP DESKJET 890CXi	$378
HP DESKJET 1000CXi (11 x 17)	$415
HP DESKJET 1600C	$1288
HP DESKJET 1600CM	$1879
HP LASERJET 6LXi	$374
HP LASERJET 6PXi	$729
HP LASERJET 6MP	$878
HP LASERJET 4000	$1089
HP LASERJET 4000T	$1194
HP LASERJET 4000N	$1399
HP LASERJET 4000TN	$1549
HP LASERJET 5si	$2339
HP LASERJET 5siNX	$2629
HP LASERJET 5siMX	$2989
HP COLOR LASERJET 5	$3799
HP COLOR LASERJET 5M	$4799
HP ScanJet 5S	$189
HP ScanJet 5100CXi	$299
HP ScanJet 6100C	$698
HP OfficeJet Pro 1170CXi	$789

Victoria — PENTIUM II - BX with MMX™ Technology

- Intel SE440BX ATX MB
- Intel BX Chipset
- 64MB SDRAM Exp. to 384MB
- Mid Tower ATX Case w/235W
- Matrox Millenium II 8MB AGP
- U.S. Robotics 2X 56K Fax/Modem
- Western Digital 6.4 Ultra DMA EIDE HDD
- 1.44 Floppy Drive
- Toshiba 32X EIDE CD ROM
- Yamaha YST-M15 10W Speakers
- 104-Key PS/2 Enhanced Keyboard
- MS PS/2 Mouse & Pad
- MS Windows 95
  (Monitor not included)

350MHz $1859
400MHz $1959

Victoria — PENTIUM II - LX with MMX™ Technology

- ASUS P2L97 ATX MB
- Intel LX Chipset
- 64MB SDRAM Exp. to 384MB
- Mid Tower ATX Case w/235W
- Matrox Millenium II 4MB AGP
- U.S. Robotics 2X 56K Fax/Modem
- Western Digital 4.3 Ultra DMA EIDE HDD
- 1.44 Floppy Drive
- Toshiba 32X EIDE CD ROM
- Yamaha YST-M7 5W Speakers
- 104-Key PS/2 Enhanced Keyboard
- MS PS/2 Mouse & Pad
- MS Windows 95
  (Monitor not included)

233MHz $1199
266MHz $1229
300MHz $1369
333MHz $1459

Victoria — PENTIUM - TX with MMX™ Technology

- ASUS TXD4 AT MB
- Intel TX Chipset
- 32MB EDO RAM Exp. to 256MB
- Mid Tower Case w/235W
- Diamond Stealth 2000 Pro PCI / 2MB
- U.S. Robotics 2X 56K Fax/Modem
- Western Digital 2.1GB EIDE HDD
- 1.44 Floppy Drive
- Toshiba 24X EIDE CD ROM
- Sound Blaster 16 PNP
- SP-935B 80W Stereo Speakers
- 104-Key Enhanced Keyboard
- 3 Button Mouse & Pad
- MS Windows 95
  (Monitor not included)

200MHz $819
233MHz $869

Victoria — VALUE - TX with MMX™ Technology

- Pentium 430TX AT MB
- Intel TX Chipset
- 32MB EDO RAM Exp. to 256MB
- Mid Tower Case w/235W
- Triden 9860 PCI / 2MB
- 56K Fax/Modem
- Western Digital 2.1GB EIDE HDD
- 1.44 Floppy Drive
- 24X EIDE CD ROM
- 16-bit Sound Card PNP
- SP-935B 80W Stereo Speakers
- 104-Key Enhanced Keyboard
- 3 Button Mouse & Pad
- MS Windows 95
  (Monitor not included)

MMX 200MHz $719
MMX 233MHz $769

Business Hours: Monday — Friday, 9:00 A.M. — 6:00 P.M. (Fresno Also Opens Sat 10:00A.M. - 6:00 P.M.)

SANTA CLARA
Tel: (408)986-9898 / Fax: (408)986-9989
980 Walsh Ave.
Santa Clara, CA 95050
Email: hd@sc.hdcomputer.com

SAN FRANCISCO
Tel: (415) 434-8118 / Fax: (415) 434-8128
232 Montgomery St.
San Francisco, CA 94104
Email: hdsf@worldnet.att.net

FRESNO
Tel: (209) 446-0809 / Fax: (209) 446-0819
6481 North Blackstone Ave.
Fresno, CA 93710
Email: hdfresno@inreach.com

LOWEST PRICE! GOOD DEAL!

TOTAL INTERNET SOLUTION!

Cyber Cafes

Espresso &
Internet Access

CAL-NET

Computers &
Network Specialist

CYBERMERICA

WEB Design &
Intranet Software Design

CYBER CAFE Speicals!

INTEL'S PENTIUM SYSTEM
P166MMX/P200MMX/P233MSX
Intel 430 TXi chip set
32 MB SDRAM
3.2 GB HDD(Mxtor,Fugisu)
24x CD-ROM(Misumi)
1.44FDD(Misumi)
VGA CARD (Jaton 2MB)
Modem/Fax(56 cirrus logic)
Sound card (Yamaha)

$600/$800/$1200
INCLUDING 14" MONITOR

CYBER CAFE Best Buy!

INTEL'S PENTIUM II SYSTEM
PII 233/PII 266/PII 333
Intel 440LX AGP set
64 Mb EDO Ram
4.3 Gb HDD(Mxtor,Fugisu)
24x CD-ROM(Misumi)
1.44FDD(Misumi)
VGA CARD (67linear)
Modem/Fax(56K CLi)
Sound card (Yamaha)

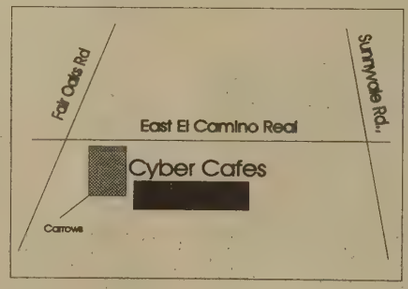
$900/$1200/$1400
INCLUDING 14" MONITOR

Come to Cyber Cafes And Enjoy The Most Exceptional Coffee & Tea.
Come to Cyber Cafes and Learn About The Latest Technology.
Come to Cyber Cafes and Experience The Next Generation.

408.736.5478

573 E. EL CAMINO REAL
SUNNYVALE, CA 94087

www.cybermerica.com



CPU

INTEL PENTIUM
P166MMX
P200MMX
P233MMX
PII-233 MHZ
PII-266 MHZ
PII-300 MHZ
PII-333 MHZ
PII-350 MHZ
PII-400 MHZ

MONITOR

14" KDS (1024X768)
15" KDS (1280X1024)
17" KDS (1289X1024)

CD-ROM

MODEM/FAX

56KFAX/MODEM/VOICE.
33.6 FAX/MODEM/VOICE
PCMCIA FAX/MODEM

MOTHERBOARD

Intel 440LX
Intel BX(400M Hz)

RAM

RAM(EDO 72 pin)
4MX 32
8MX 32
DIMM 168 pin
32M:4MX 64
64M:8MX64

HARD DRIVE

2.1 Gb.....
3.2 Gb.....
4.3 Gb.....
6.0 Gb.....
8.0 Gb.....

NETWORK TOOL

WEB MASTER

As floppy drives become less and less useful, IBM ships the ThinkPad 600 with a 24X CD-ROM drive in its UltraslimBay. This bay holds either the CD-ROM drive or a floppy drive. If you want neither, a weight-saver holder fills the slot and lets you travel light. IBM has wisely designed it so you can attach both the CD-ROM and the floppy drive. The floppy drive fits into a housing that attaches to the side of the computer. If you take the drive out of the housing, it fits in the UltraslimBay.

While the TFT display on the ThinkPad 600 is not the largest on the market, it measures a generous 13.3" diagonally. Both the built-in LCD and an external monitor will display at XGA resolution of up to 1024 x 768. You can see either or both displays.

Although the keyboard is good, it is my one area of complaint. It lacks the Windows 95 keys. These keys let you get to the start menu without having to use the mouse. I find this especially helpful when I am in the middle of an application and my taskbar is hidden. This is the first new computer I have seen in a long time that lacks these keys.

On the other hand, IBM has greatly improved its TrackPoint pointing device. The TrackPoint looks a lot like an eraser head planted in the middle of the keyboard. Push the button and the pointer moves in the direction of your nudge. The harder you push, the faster it flies. Two buttons just underneath the keyboard serve as left and right mouse buttons. There is

continued on page 40

The newest ThinkPad 600 is a delight—it is sleek, lightweight, powerful, and features an innovative new TrackPoint.

Upgrade to ARESCOM APEX 1100 NOW!

$199 ISDN ROUTER with trade-in*

"If you have an Ethernet LAN and want to provide economical access to the Web and maintain good performance, the Apex 1100 dishes out data efficiently and affordably."
COMPUTER SHOPPER

\+ **$199** =

100% Satisfaction Guaranteed or your money back.

Call
(888)575-ISDN
for more details.
Or visit our website
http://www.arescom.com

Free!

INTERNET SOFTWARE
- *Microsoft®:* Internet Explorer 4.0 with NetMeeting 2.1
- *Communication Utilities:* Internet Fax, Video Conferencing, Internet & ISDN Monitor, PC Remote Control
- *Web Utilities:* Website Submission, Acrobat 3.1, 3D & Web Graphics, Contact & Calendar Management

APEX 1100
All-in-one ISDN BRI TA, Bridge, Router & Gateway

- **Remote Manager™** *for convenient remote setup & management*
- Dynamic IP (NAT) & Static IP
- Internet & LAN-to-LAN Bridging
- Multiple user profiles / Callback / Filtering
- Data-Over-Voice
- Dial-in/Dial-out for client/server capabilities
- MLPPP, PAP & CHAP, Compression
- Dial/Bandwidth-on-Demand
- Windows® 95 and NT 4.0 GUI
- Auto SPID & switch type detection
- *Plus much, much more...*

** All trade-in orders must be placed before June 30, 1998. Promotion is limited to stocks on hand and may not be combined with any other offer or promotion. Contact Arescom for more details.*

"TOP CHOICE, BEST VALUE" SUPER PENTIUM™ II SYSTEMS...

IQ INFOQUEST COMPUTER

LOOK!

$AVE 3% with Cash Purchase on Systems

IQ INFOQUEST
4500 El Camino Real
Los Altos, CA 94022
Tel: (650) 917-9180
Fax:(650) 917-9183
Hours: Mon-Fri 9-6, Sat 12-5
WebSite: WWW.IQINFOQUEST.COM

IQ LEVEL-5 Pentium®

EXPLORER

- Intel PENTIUM® 200MHz MMX Processor
- Intel AN430TX Mainboard w/512K Cache
- 32Mb SDRAM 10ns (168pins 1x32M)
- 1.44Mb Floppy Drive
- 4.3Gb Ultra EIDE Hard Drive
- Built In Ultra IDE (DMA/33) & Hi-Speed I/O
- ATX1 SuperMid Tower Case, 230Watts P.S
- Decaview G380 (17" 1280x1024@66Hz.28dpi)
- Diamond 3D 2000 Pro 2Mb EDORAM
- Toshiba 24X EIDE CD-ROM Drive
- Labtec Stereo Speakers
- Keytronic Win95 Keyboard
- Logitech 1st Mouse & Mouse Pad
- CD: Microsoft Windows 95

Super Buy

$990

Pentium 233Mhz MMX $1030

IQ LEVEL-6 PENTIUM® II

PATHFINDER

- Intel PENTIUM II 233Mhz Processor w/MMX Technology (CPU L2-512K Cache)
- Intel Seattle 440BX/S Pentium II Mainboard
- 64Mb SDRAM 100Mhz (168pins 1x64M)
- 1.44Mb Floppy Drive
- 6.4Gb Ultra EIDE Hard Drive
- Built-In Ultra IDE (DMA/33) & Hi-Speed I/O
- ATX1 SuperMid Tower Case, 250Watts 2.01 P.S.
- Decaview G387 (17" 1600x1280@75Hz .25dpi)
- Matrox Produtiva G100 8MB SGRAM (AGP)
- Toshiba 32X EIDE CD-ROM Drive
- Built-In Crystal Sound Card (ISA)
- Yamaha M7 Speakers
- Keytronic Win95 Keyboard
- IOMEGA 100Mb Zip Drive (Internal IDE)
- Logitech 1st Mouse Plus (Internet Mouse)
- CD: Microsoft Windows 95

$1480

Pentium II 266Mhz $1545
Pentium II 300Mhz $1680
Pentium II 333Mhz $1800
Pentium II 350Mhz $1890
Pentium II 400Mhz $2140

IQ LEVEL-5 AMD

RANGER

- AMD K6-233 MMX Processor
- Jbond 430TX Mainboard w/512K Cache
- 64Mb SDRAM 10ns (168pins 1x64M)
- 1.44Mb Floppy Drive
- 4.3Gb Ultra EIDE Hard Drive
- Built-In Ultra IDE (DMA/33) & Hi-Speed I/O
- ATX1 SuperMid Tower Case, 230Watts P.S.
- Decaview G380 (17" 1280x1024@66Hz.28dpi)
- Diamond 3D 2000 Pro 4Mb EDORAM
- Toshiba 24X EIDE CD-ROM Drive
- Yamaha Chipset Sound Card
- Labtec Stereo Speakers
- Keytronic Win95 Keyboard
- Logitech 1st Mouse Plus (Internet Mouse)
- CD: Microsoft Windows 95

$1015

AMD K6-266 MMX $1100
AMD K6-300 MMX $1195

IQ LEVEL-6 Ultra Wide SCSI

DISCOVER

- Intel PENTIUM II 233Mhz Processor w/MMX Technology (CPU L2-512K Cache)
- SuperMicro P6SBS Pentium II Mainboard
- 64Mb SDRAM 100Mhz (168pins 1x64M)
- 1.44Mb Floppy Drive
- 4.3Gb Ultra Wide SCSI Hard Drive
- Built-In Adaptec 7880 Ultra Wide SCSI
- Built-In Ultra IDE (DMA/33) & Hi-Speed I/O
- ATX1 SuperMid Tower Case, 250Watts 2.01 P.S.
- Decaview G387 (17" 1600x1280@75Hz .25dpi)
- Matrox Productiva G100 8Mb SGRAM (AGP)
- Teac 32X CD-ROM Drive
- Sound Blaster 16 PnP Sound Card
- Yamaha M7 Speakers
- Keytronic Win95 Keyboard
- Logitech 1st Mouse Plus (Internet Mouse)
- CD: Microsoft Windows 95

Value Buy!

$1660

Pentium II 266Mhz $1725
Pentium II 300Mhz $1860
Pentium II 333Mhz $1980
Pentium II 350Mhz $2070
Pentium II 400Mhz $2320

IQ LEVEL-6 Pentium® II

TROOPER

- Intel PENTIUM II 233Mhz Processor w/MMX Technology (CPU L2-512K Cache)
- Intel AL440LX/S Pentium II Mainboard
- 64Mb SDRAM 10ns (168pins 2x32M)
- 1.44Mb Floppy Drive
- 4.3Gb Ultra EIDE Hard Drive
- Built In Ultra IDE (DMA/33) & Hi-Speed I/O
- ATX1 SuperMid Tower Case, 230Watts P.S.
- Decaview G387 (17" 1600x1280@75Hz .25dpi)
- Diamond 3D 4000 4Mb SGRAM (AGP)
- Toshiba 32X EIDE CD-ROM Drive
- Built-In Yamaha Sound Card
- Labtec Stereo Speakers
- Keytronic Win95 Keyboard
- Logitech 1st Mouse Plus (Internet Mouse)
- CD: Microsoft Windows 95

Super Buy

$1260

Pentium II 266Mhz $1325
Pentium II 300Mhz $1460
Pentium II 333Mhz $1580

IQ LEVEL-6 DUAL STATION

LINUX & WIN95

- Intel PENTIUM II 233Mhz Processor w/MMX Technology (CPU L2-512K Cache)
- Jbond 440BX Chipset Pentum II Mainboard
- 64Mb SDRAM 10ns (168pins 2x32M)
- 1.44Mb Floppy Drive
- 6.4Gb Ultra EIDE Hard Drive
- Built-In Ultra IDE (DMA/33) & Hi-Speed I/O
- ATX2 Mid Tower Case, 250Watts Power Supply
- Decaview G387 (17" 1600x1280@75Hz .25dpi)
- Diamond 3D 2000 Pro 4Mb EDORAM
- Toshiba 32X EIDE CD-ROM Drive
- Built-In Yamaha Sound Card
- Yamaha M7 Speakers
- Keytronic Win95 Keyboard
- Logitech Mouseman & Mouse Pad
- CD: LINUX & MS Windows 95

$1430

Linux is the UNIX operating system capable of running PC along w/MS-DOS & Windows.

- Built-in communication & networking TCP/IP, UUCP, NFS, Telenet, FTP, E-Mail, Slip,PPP.
- Graphical Interface/Tool: X11,XView, Tel, TK, Motiff.
- GNU development system: SmallTalk, Liop, Prolog, & Ada
- GNU C/C++ Complier, Assembler and Debugger for 8800, 80386, 6800, Sparc, & RS/600.
- Interpreters: Pascal to C, Fortron to C, Simula to C, APL & Rexx.
- Full UNIX Utilities and thousands of free applications from the internet around the world.

WE BUILD SYSTEMS TO YOUR NEEDS! VISIT OUR WEBSITE

Seagate	Seagate	New!	New!
Cheetah ST34501W 4.5Gb UWSCSI	Barracuda ST39173W 9.1Gb UWSCSI	Intel Seattle SE440BX 100Mhz Bus Speed MotherBoard Available Now!	Intel N440BX 100Mhz Bus Speed server Mainboard Call Now!
$Call	$Call	$Call	

IQ INFOQUEST COMPUTER

IQ LEVEL-6 X² PENTIUM® II — X² DATA CRUISER

- *Dual Intel PENTIUM II 266Mhz Processor w/MMX Technology (CPU L2-512K Cache)*
- *SuperMicro P6DBS Dual Pentium II Mainboard*
- *64Mb SDRAM 100Mhz (168Pins 1x64M)*
- *1.44Mb Floppy Drive*
- *4.3Gb Ultra Wide SCSI HDD*
- *Built-In Adaptec 7895 Dual Channel Ultra Wide SCSI Controller with RAID port*
- *Built-In Ultra IDE (DMA/33) & Hi-Speed I/O*
- *ATX1 Full Tower Case, 250Watts 2.01 P.S.*
- *Decaview G400 (19" 1600x1200@75Hz .26dpi)*
- *Diamond Viper 330 4Mb SGRAM (AGP-128bit)*
- *Teac 32X SCSI CD ROM Drive*
- *Sound Blaster 64 PnP Value*
- *Yamaha M7 Speakers*
- *MS Natural Keyboard*
- *Logitech 1st Mouse Plus (Internet Mouse)*
- *CD: Microsoft Windows NT 4.0 WorkStation*

Value Buy!

$2435

2x Pentium II 300Mhz .. $2705
2x Pentium II 333Mhz .. $2945
2x Pentium II 350Mhz .. $3125
2x Pentium II 400Mhz .. $3625

IQ LEVEL-6 X² PENTIUM® II — X² POWER SERVER

- *Dual Intel PENTIUM II 300Mhz Processor w/MMX Technology (CPU L2-512K Cache)*
- *Tyan 1836DULAN Dual Pentium II Mainboard*
- *128Mb SDRAM 100Mhz (168Pins 1x128M)*
- *1.44Mb Floppy Drive*
- *4.5Gb Seagate Ultra Wide SCSI HDD*
- *Built-In Adaptec 7895 Dual Channel Ultra Wide SCSI Controller with RAID Port*
- *Built-In Ultra IDE (DMA/33) & Hi-Speed I/O*
- *Built-In Intel EtherExpress Pro 10/100B NIC*
- *ATX1 Full Tower Case, 250Watts 2.01 P.S.*
- *Decaview G400 (19" 1600x1200@75Hz .26dpi)*
- *Diamond FireGL 1000 Pro 8Mb AGP*
- *Built-In Creative Vibra 16XV Audio*
- *Teac 32X SCSI CD ROM Drive*
- *Yamaha M7 Speakers*
- *MS Natural Keyboard*
- *MS Intellimouse & Mouse Pad*
- *CD: Microsoft Windows NT 4.0 Workstation*

Power Server!

$2960

2x Pentium II 333Mhz..$3200
2x Pentium II 350Mhz..$3380
2x Pentium II 400Mhz..$3880

IQ LEVEL-6 X² PENTIUM® II — X² INFOMOVER

- *Dual Intel PENTIUM II 300Mhz Processor w/MMX Technology (CPU L2-512K Cache)*
- *Intel N440BX Dual Pentium II Mainboard*
- *128Mb SDRAM 100Mhz (168Pins 1x128M)*
- *1.44Mb Floppy Drive*
- *4.5Gb Seagate Ultra Wide SCSI HDD*
- *Built-In Symbios Ultra Wide SCSI Controller*
- *Built-In Ultra IDE (DMA/33) & Hi-Speed I/O*
- *Built-In Intel EtherExpress Pro 10/100B NIC*
- *ATX Full Tower Case, 300 Watts 2.01 PS*
- *Decaview PA630 (21" 1800x1440@76Hz .28dpi)*
- *Diamond FireGL 1000 Pro 8Mb (AGP)*
- *Teac 32X SCSI CD ROM Drive*
- *Built-In Crystal Sound Card*
- *Yamaha M7 Speakers*
- *MS Natural Keyboard*
- *MS Intellimouse & Mouse Pad*
- *CD: Microsoft Windows NT 4.0 Workstation*

Super Deal!

$3380

2x Pentium II 333Mhz ...$3620
2x Pentium II 350Mhz ...$3800
2x Pentium II 400Mhz ... $4300

SOUND CARD
Creative Lab SB16 PnP $40
Creative Lab AWE64 PnP.....$70
Creative Lab AWE64 Gold .$149
Creative Lab Ensonic PCI-64...$55

CD-ROM DRIVES
TOSHIBA (24X-IDE) $70
TOSHIBA (32X-IDE) $80
TOSHIBA (32X-SCSI).....$110

CD-ROM RECORDER
Mitsubishi (Int)
2x2x6 IDE CDRewritable ..$375
4x12 IDE CDRecorder.....$415
RICOH (Int)
2x6 IDE CDRewritable $399
2x6 SCSI CDRewritable $465
SONY (Int)
928-IDE-CDRecorder.....$330
4x12 SCSI CDRecorder .....$Call
Yamaha (Int)
2x4x6 SCSI CDRewritable ...$599

CONTROLLER
Adaptec SCSI
2940U Ultra SCSI.....$149
2940UW Ultra Wide SCSI.....$175
2940U2W Ultra 2 Wide SCSI...$380
3940UW Ultra Wide SCSI....$Call
AAA 131 RaidCtrl .....$Call
AAA 133 Raid Ctrl .....$Call
ARO 1130CA Raid Ctrl .....$Call
ARO 1130SA Raid Ctrl .....$Call

FAX/MODEMS
Supra 56K Express F/M (int)...$80
Supra 56K V.90 F/M/V(int)....$95
USRobitics 56K F/M (int) $95
USRobitics 56K F/M/V (int).....$105
USRobitics 56K V.90 F/M (int)$165
USRobitics 56K V.90 F/M/V $185

MONITORS
Decaview
G380 17" 1280x1024 0.28.....$289
G387 17" 1600x1280 0.25.....$359
GA387 17" 1600x1280 0.25....$415
PA380 17" 1600x1280 0.25.....$455
PA630 21" 1800x1440 0.28...$815
HYAMA (IDEK)
8617e 17" 1600x1280 0.26.....$535
9017e 17" 1600x1280 0.25 .....$685
NANAO
FX-C5 17" 1280x1024 .....$695
FX-C6 17" 1600x1280 0.26.....$785
TX-C7S 17" 1600x1280 0.25..$1025
TX-D7S 20" 1600x1280 .....$1635
NEC
A700 17" 1280x1024 0.28 .....$535
E700 17" 1280x1024 0.25 .....$680
P750 17" 1600x1280 0.25 .....$780
E1100 21" 1280x1024 0.28... $1250
P1150 21" 1600x1280 0.28....$1395
SONY
200ES 17" 1280x1024 0.25 ...$535
200GS 17" 1280x1024 0.25 ..$635
200PS 17" 1600x1280 0.25....$785
400PS 19" 1600x1280 0.25 ..$975
500PS 21" 1600x1280 0.30 .$1495
VIEWSONIC
G773 17" 1280x1024 0.26.....$485
G790 19" 1600x1280 0.26.....$890
G810 21" 1600x12804 0.25....$1135
GT775 17" 1600x1280 0.25.....$599
P655 15" 1280x1024 0.25 ...$Call
P775 17" 1600x1280 0.25 .....$565
P815 21" 1600x1280 0.25 .....$1400
PT775 17" 1600x1280 0.25 .....$680
PT813 21" 1600x1280 0.25 .$Call

VIDEO CARDS
ATI All In Wonder (PCI)
4Mb EDORAM $155
ATI All In Wonder Pro (AGP)
4Mb SGRAM $240
8Mb SGRAM $280
ATI 3D Xpression+ (PC2TV)
4Mb SGRAM $100
ATI 3D Pro Turbo (PC2TV)
4Mb SGRAM $125
8Mb SGRAM $165
ATI Xpert @ Work (AGP)
4Mb SGRAM $140
8Mb SGRAM $180
ATI Xpert @ Play (PC2TV)
4Mb SGRAM.....$160
8Mb SGRAM.....$200
ATI Xpert XL
4Mb EDORAM $95
Diamond Stealth 3D 2000 Pro
4Mb EDORAM $70
Diamond Stealth 3D 4000
4Mb SGRAM .....$Call
Diamond Viper 330 (AGP/PCI)
4Mb SGRAM .....$Call
Diamond FireGL 1000 Pro
4Mb SGRAM $155
8Mb SGRAM .....$Call
Diamond FireGL 3000
16Mb (8V+8E RAM) ...$Call
24Mb (8V+16E RAM)....$Call
40Mb (8V+32E RAM) ....$Call
Diamond FireGL 4000 (PCI)
16Mb (8V+8E RAM) ...$Call
24Mb (8V+16E RAM)....$Call
40Mb (8V+32E RAM) ....$Call
Diamond Monster 3D (PCI)
4Mb EDORAM $140
Diamond Monster 3D II (Voodoo2)
4Mb EDORAM $255
8Mb EDORAM .....$Call
Intel 3D740 4Mb SGRAM.....$Call
Matrox Millennium II (AGP)
4MbWRAM.....$159
8MbWRAM.....$Call
Matrox Mystique 220
2Mb SGRAM .....$Call
4Mb SGRAM .....$Call
Matrox Productiva G100 (AGP)
4Mb SGRAM .....$Call
8Mb SGRAM .....$Call

NETWORK CARD
3COM
3COM 3C509B T/P.....$50
3COM 3C900 PCI T/P.....$Call
3COM 3C900 PCI Combo.....$79
3COM 3C905 PCI 10/100 T/P$75
Intel
EtherExpess Pro 10/100+T/P.. $65

TAPE BACKUP
IOMEGA
Zip Drive 100Mb SCSI (int).....$125
Zip Drive 100Mb IDE (int).....$95
Jaz Drive 1.0Gb SCSI (Int).....$295
Jaz Drive 1.0Gb SCSI (Ext)...$395
Syquest
EZ-SyJet 1.0Gb (Int)..... Call
EZ-SyJet 1.5Gb SCSI (Ext).....Call
HP
HP C1536 2~4Gb DAT Drive .$565
C1536 Mounting Frame...$25
HP C1599 4~8Gb DAT Drive .$785
C1599 Mounting Frame...$25
HP Autoloader Magazine C1570A
5x 4mm DDS3 DAT Tapes.$145

PRICE SUBJECT TO CHANGE WITHOUT NOTICE
NOT RESPONSIBLE FOR TYPOS!

MONITOR
DECAVIEW
G380
PROMOTION SALES
*CALL FOR DISTRITION

⇨ 17" Monitors (16" Viewable Area)
⇨ Use Toshiba Tube
⇨ Up to 1280x1024@66Hz 0.28dpi
⇨ Bandwidth 110 Mhz
⇨ 3 Yrs Manufacturer Warranty

$289

MONITOR
DECAVIEW
G387
WITH PROMOTION SALES
*CALL FOR DISTRITION

⇨ 17" Monitors (16" Viewable Area)
⇨ Use Panasonic Tube
⇨ Up to 1600x1280@75Hz 0.28dpi
⇨ Bandwidth 110 Mhz
⇨ 3 Yrs Manufacturer Warranty

$339

MONITOR
DECAVIEW
GA387
PROMOTION SALES
*CALL FOR DISTRITION

⇨ 17" Monitors (16" Viewable Area)
⇨ Use DiamondTron Tube
⇨ Up to 1600x1280@75Hz 0.25dpi
⇨ Bandwidth 158 Mhz
⇨ 3 Yrs Manufacturer Warranty

$389

MONITOR
DECAVIEW
PA380
PROMOTION SALES

⇨ 17" Monitors (16" Viewable Area)
⇨ Use DiamondTron Tube
⇨ Up to 1600x1280@75Hz 0.25dpi
⇨ Bandwidth 200 Mhz
⇨ 3 Yrs Manufacturer Warranty

$455

DAT DRIVE MAGAZINE
HP C1570A
MAGAZINE
HP C1570A
Clearance Sales !

⇨ HP C1570A - DAT Magazine
⇨ 5 - 120mm DDS-3 DAT Cartridges
⇨ 1 - Cleanning DAT Cartridge

$145

continued from page 37

also a center button. This lets you use the TrackPoint as a scrolling device. This is particularly useful for spreadsheets. By setting the software up differently, you can also use the TrackPoint as a magnifier to zoom in on parts of your display. Finally, you can set the software so that with a tap the TrackPoint works like a mouse button. You have to try this device to appreciate its sophistication.

You can also attach an IBM mouse that can be used in conjunction with the TrackPoint. This is a nice arrangement, but you are restricted to using their mouse. Any other mouse works like a mouse, but not in conjunction with the TrackPoint. If you decide to connect an external keyboard, you can do so through the mouse/keyboard port. Unfortunately, you cannot connect both unless you spring for a port replicator ($199). IBM used to sell a simple cable that did this job, but they have discontinued it! Before getting the port replicator, you might consider getting a full docking station ($699) that also gives you two additional PC Card slots, two full-size and one half-size PCI ISA slots and a SCSI-3 interface.

While the ThinkPad 600 is a pricey notebook computer, it has a lot to offer.

The basic ThinkPad 600 comes with two stacked PC Card slots that will accommodate cards of Type I through Type III. These slots support Zoomed Video and CardBus. Software supports MPEG-1 playback for smooth full screen video. There are a pair of speakers on the top of the computer. Microphone and speaker ports fill out the multimedia capabilities of the ThinkPad 600.

A built-in 56K fax/modem also comes standard. While the modem is as fast as they come these days, I worry that it will be difficult to upgrade when faster models become available. I think PC Card modems are a better solution. In addition to the modem, there is a USB port. With the release of Windows 98, we should begin to see devices using this interface come to market. An infrared port facilitates the transfer of data between similarly equipped systems.

While the ThinkPad 600 is a pricey notebook computer, it has a lot to offer. Various warranty packages are available and you know the company will be around for a while. ◆

Copyright © 1998 by Ed Kahn. All rights reserved.

Resources:

ThinkPad 600, $4599
IBM Corp.
Old Orchard Rd.
Armonk, NY 10540
www.ibm.com

Custom ULTRA SCSI Solutions

SCSI Vue Active Terminator
From $59 Optional Remote Display
Four models available with optional Remote LED Pak. These are the finest terminators available, they fix SCSI problems and improve reliability.
Benefits: • Improves SCSI Bus Performance • Less Errors; More Reliable Data Transfer • Diagnoses Problems • Analyzes Signal Quality
Features: • Active Regulation • Fast 50 & Fast Wide 68 • Status Indicators • Gold Contacts

Active 2:1 Switch/Repeater
From $599
Benefits: • Up to 14 Devices to 1 Computer • Share Devices Between 2 Computers
Features: • 2-1 Active Digital Switch/Repeater • Regenerates SCSI Signal for Long Runs

Diagnostic Adapters
Styles: Gender Changers Both 50 pin and 68 pin (all combinations)
: 68 pin Drive to 50 Bus • 68 Pin Drive to 50 Pin IDC (runs wide drive as narrow)
Styles: 68 Pin Adapter Wide to 50 Pin Narrow • 68 Pin External Adapter to 50 Pin (converts Host Adapter)
From $49
: For Adaptec Ultra Wide Cards • Adapters with partial termination built in for 68 to 50 converters (converts Host Adapter)

SCSI Vue Gold Diagnostic Cables
Features: • Diagnostic Indicators • Large Ferrite Filters • Triple Shielding (Unique Design) • Double Gold 20u" Plated Connectors • Extra Heavy 26 Gauge Wire • 100 Styles in Stock
From: $39
Benefits: • No Loss Of Important Data • Faster Performance • Test Cable Integrity

Teflon External 90 Ohm SCSI Cables
From $159
Features: • Perfect 90 Ohm Impedance Match • Triple Pronged Connector With Gold contacts

Custom Teflon Int. Cables
is a registered trademark of DuPont
Benefits: • Less Errors, Ultimate Performance • Silver Wire Improves Signal Quality
Features: • Perfect 90 Ohm Impedance • Custom in 1 Day • Triple Pronged Connector - Gold contacts Silver Wire
68 Pin Internal Cables, custom or stock, from 1 to 15 SCSI devices per cable . We can also make Custom 68 pin and 50 pin Combination Cables that allow you to use narrow drives on a wide cable.

Cable Tester - LED Readout
This Digital SCSI Cable Tester can test all the popular cable styles for opens, shorts, and unreliable operation. Battery powered for easy use anywhere you need it. Three models to choose from:
• 50 pin Centronics
• 50 pin IDC
• 68 pin MicroD
From $49

Gold Ultra SCSI Cases
• Ultra SCSI Teflon Cable Available • Ship in 1 Day for Raid & Arrays
From $99
NEW! Temperature ALARM! Automatic Monitor & Control
From $59
The Vertical 3.5" Case Kit offers a small transportable package. Ideally suited for moving around, this durable case can take a beating. Universal 35 Watt power supply.
The Horizontal 3.5" or 5.25" Case Kit Offers a stackable solution for any desktop need. Shown with Optional Bay Cooler installed.
Open Face and Closed Face Models Available
Optional 50 or 68 Internal Cables Available
Bay Cooler Kit keeps those HOT Ultra SCSI Drives COLD as ICE!
Dual Fan & Bracket $29
HOT SWAP Pull Out Bays Compatible with all 50 pin & 68 pin SCSI Buses up to Fast SCSI 2. From $79.00

Active Digital SCSI Repeater
Power Supply Included
From $139
Benefits: • Models for all SCSI types • Fixes SCSI Cable Problems
Features: • Doubles Cable Length (up to 18') • Active Termination and Signal Purification • Ultra Fast Performance for Added Capabilities • Diagnostic Capabilities • 30u" Gold Contacts

Granite
Online Catalog at www.scsipro.com
The SCSI Solution Company
3101 Whipple Rd. • Union City, Ca. 94587 • Ph: 510-471-6442 • Fax 510-471-6267

$14 a month

Getting Tired of Busy Signals?

CKNS INTERNET

Includes The Following:
- Unlimited Internet Access
- 10MB Web Space
- 56K Flex & v.90 Dial Up Access
- 10 Day Money Back Guarantee

PLUS MORE...

Premier Accounts Also Available Includes:
- ISDN - FRAME - T-1
- Web Page Set-Up & Design
- Full Turn Key Commerce
- Secure Hosting & Billing

408-247-9720

www.ckns.net • E-mail: info@ckns.net

HOME STATION

- **Intel** Anchroge 430TX System
- Intel Pentium CPU with Fan
- 512k Cache & Yamaha 16 Bit Sound
- Built-in EIDE & 16550 IO Ports
- Built-in EPP & Floppy I F Ports
- 32MB 168pin SDRAM Dimm
- Teac 1.44MB Floppy Drive
- 4.3GB Ultra DMA IDE Hard Drive
- Toshiba 32X IDE CDROM
- Diamond 3D4000 PCI w. 4MB
- 80W Pair of Speakers
- ATX Mini-Tower Case w . PS
- MS PS 2 Mouse.104 Keytronics K B
- MS Windows 95

Please Call for Monitor

Pentium 233MMX $850
Pentium 200MM.....$830
Pentium 166MMX $820
Pentium 166/133.....$800

OFFICE STATION

- **ASUS/Intel** Pentium II 440LX System
- Intel Pentium CPU with Fan
- 512k Cache
- Built-in EIDE & 16550 IO Ports
- Built-in EPP & Floppy I F Ports
- 64MB 168 Pin SDRAM Dimm
- Teac 1.44MB Floppy Drive
- 4.3GB Ultra DMA IDE Hard Drive
- Toshiba 32X IDE CDROM
- Diamond 3D2000 PCI with 2MB
- ATX Mini-Tower Case w . UL PS
- MS PS 2 Mouse. 104 Keytronics K B
- 3COM 3C905TX 10 100 PCI NIC.
- MS Windows 95 on CD

Please Call for Monitor

Pentium II 333MMX $1320
Pentium II 300MMX.....$1190
Pentium II 266MMX.....$1105
Pentium II 233MMX.....$1010

ENGINEERING STATION

- **Intel** Pentium Pro 440FX System
- Intel Pentium Pro CPU with Fna
- L2 Cache Built-in 256 512K
- Built-in EIDE & 16550 IO Ports
- Built-in EPP & Floppy I F Ports
- 128MB-ECC EDO with 3.3V Buffer
- Teac 1.44MB Floppy Drive
- 4.3GB Ultra Wide SCSI HDD
- AHA2940UW Ultra SCSI and Intel 10 100 NIC. 16 Bit sound Integrated
- Matrox Millennium 4MB WRAM PCI
- Toshiba 32X SCSI-II CD-ROM
- Mid-Tower Case w . UL PS
- MS Mouse & 104 Keyboard
- MS NT for Workstation 4.0 on CD

Pentium Pro Dual 200/512....$4150
Pentium Pro Dual 200/256....$2650
Pentium Pro 200/512K $2840
Pentium Pro 200/256K $2100

CAD POWER STATION

- **ASUS/Intel** Pentium II 440BX System
- Intel Pentium II CPU with Fan
- 512K cache with ECC
- Built-in EIDE & 16550 IO Ports
- Built-in EPP & Floppy I F Ports
- 128MB 168pin SDRAM 100MHz
- Teac 1.44MB Floppy Drive
- 4.3GB Ultra Wide SCSI Hard Drive
- Toshiba 32X SCSI-II CDROM
- AHA 2940UW Ultra SCSI Adapter
- Matrox Mill. II 4MB WRAM AGP
- 16 Bit Sound Yamaha Chip OLP
- ATX Mid-Tower Case w . UL PS
- Yamaha YST-M7 Speakers
- MS PS 2 Mouse & PS 2 Keyboard
- MS Windows NT for Workstation

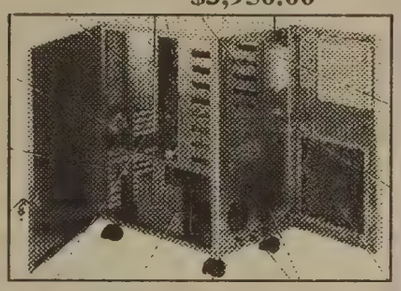
Pentium II 400MMX $2,290
Pentium II 350MMX $2,150

DUAL PENTIUM-II 333MHz SUPER-SERVER

$3,950.00

Includ:

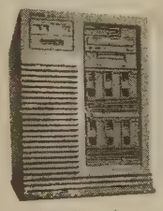
- **Intel R440LX Dual Pentium II M/B**
- **Intel EtherXprss 10/100 and PCI-ISA**
- **Dual-Channel SCSI Controllers**
- **Seagate 9.1GB Ultra-Wide SCSI HD**
- **128MB ECC 168pin SDRAM-10ns**
- **Teac 1.44MB Floppy Disk Drive**
- **Toshiba 32X SCSI-II CD-ROM**
- **Diamond AGP 4MB Video Card**
- **MS PS/2 Mouse and 104 Keyboard**
- **2X 300W Hot-Swap Power Supply**
- **Tower Case w/. 12 Bays & 4 Fans**
- **OS, Hot-Swap HDD and Raid is Customer Option and upgradable**



HP LH II Pro Pentium II 300/333Hz

Dual Pentium II 300/333MHz-512k
EDO Dimms 64MB
AIC7870 PCI SCSI Dual
CD-ROM & VGA
Keyboard & Mouse
HP 3 year On-Site

Starts: $4,950.00



** Call for LH Pro. LX Pro. LXe Pro... **

IBM PC Server

IBM E325 Starts
Pentium Pro 200MHz
256K, 2nd. CPU Option
CD-ROM, 1.44MB FDD
K/B and Mouse

Call for Details and Options

5 Year Labor & 1 Year Parts Warranty for Fine Tec Systems

SCSI Hard Disk Drive

Seagate(UN/W/UW/WD/WC)

ST32550W	2.1GB	7200RPM	9ms	$295
ST32272N W	2.1GB	7200RPM	8ms	$340 350
ST32272WD WC	2 1GB	7200RPM	8ms	$420 400
ST34572N W	4.5GB	7200RPM	8ms	$480 490
ST34572WD WC	4.5GB	7200RPM	8ms	$570 520
ST34573LW LC	4.5GB	7200RPM	8ms	$570 570
ST34501N W	4.5GB	10000RPM	8ms	$580 600
ST34501WD WC	4.5GB	10000RPM	8ms	$670 620
ST34502LW LC	4.5GB	10000RPM	8ms	$675 675
ST39173N W	9.1GB	7200RPM	8ms	$820 830
ST39173LW LC	9.1GB	7200RPM	8ms	$750 750
ST19171WD WC	9.1GB	7200RPM	8ms	$950 870
ST19101N W	9.1GB	10000RPM	8ms	$920 940
ST39102LW LC	9.1GB	10000RPM	8ms	$890 890

Fujitsu(UN/UW)

M2954 NS WS	4.4GB	7200RPM	8ms	$470 490
M2949 NS WS	9.1GB	7200RPM	8ms	$680 690

IBM(UN/UW)

DORS32160W	2.1GB	5400RPM	9ms	$195
DCAS34330W	4.3GB	5400RPM	9ms	$290
DCHS34300N W	4.3GB	7200RPM	8ms	$460
DCHS39100W	9.1GB	7200RPM	9ms	$680

WD(UN/UW)

WDE4360S W	4.3GB	7200RPM	8ms	$470 480
WD9100S W	4.3GB	7200RPM	8ms	$695 705

Quantum (UN/W/UW)

XP31070W	1.0GB 7200RPM	9ms	$225
ST2.1S	2.1GB 5400RPM	9ms	$220
ST3.2S	3.2GB 5400RPM	9ms	$255
ST4.3S	4.3GB 5400RPM	9ms	$290
ST6.4S	6.4GB 5400RPM	9ms	$390
32275SW	2.1GB 7200RPM	8ms	$190
34550VK-S	4.5GB 7200RPM	8ms	$330
34550PX-SW	4.5GB 7200RPM	8ms	$450
34550PX-LW C	4.5GB 7200RPM	8ms	$450
309100PX-SW	9.1GB 7200RPM	9ms	$690
9100PX-LW C	9.1GB 7200RPM	9ms	$720

External Option

Single Bay w. SCSI Centronic 50 Pins		$90
Single Bay w. SCSI-II Narrow 50 Pins		$120
Single Bay w. SCSI-III Wide 68 Pins		$130
2-Bay, 4-Bay and 9-Bay....		Call

SCSI Special !!!

IOmeg 1GB Jaz Drive Int. Ext.	$250 290
IOmeg 100MB Int. Ext. Zip Drive	$105 145
12 20 Plextor Int. SCSI-II CD-ROM	$190
14 32 Plextor Int. SCSI-II CD-ROM	$205
32X Toshiba Int. SCSI -2 CD-ROM	$115
Richo MP6201 CD Rewrite Int. w. SW	$395
Taec 55S. 4X12. CD Recorder SCSI	$420
Yamaha CDRW4260T SCSICD Re-Write	$470
Adaptec AHA2940UW w. Software	$195
Adaptec AHA2944UDW w. Software	$390
Adaptec AHA3940UW w. Software	$420
Buslogic KT-958UW w. software	$245
Kingston 9-Bay Data Silo Rack Mount	$1030
Kingston Data Express Hot Swap Drawer	$225
Mylex/DPT Raid Controller	**Call**

SCSI Tape Backup

HP 4mm Data Series

HP1534(2GB) 1536(4GB) 4mm Data	$520 550
C1599A Dat. Internal 4-8 GB 3.5" x HH	$720
Surestore 1200E Auto-Load Ext. 48GB DDS-2	$2750
C1559A Dat. Ext. 24x6E 144GB DDS-3	$3590

ExaByte and Sony 8mm

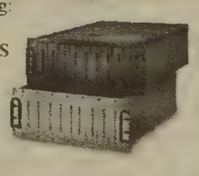
Exabyte 820SE Eliant External 7-14GB Kit	$1820
Exabyte 8700LT External 5-10GB Kit	$690
Sony SDXS300C BM. AIT 50GB Ext.	$3290

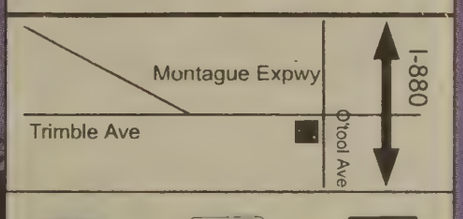
Raid Sub-System

Raid Sub-System including:
* 9 Bays Data Silo (R.M)
* Dual Hot Swap 300W PS

$1,030.00

Hot Swap Module:
* 2.1GB....$550
* 4.3GB....$770
* 9.1GB....$1090





Gov't, School, Corporation and Firm's PO. Welcome

- Not Responsible For Typographical Errors
- Price Subject to Change without Notice
- Order for items not listed also Available

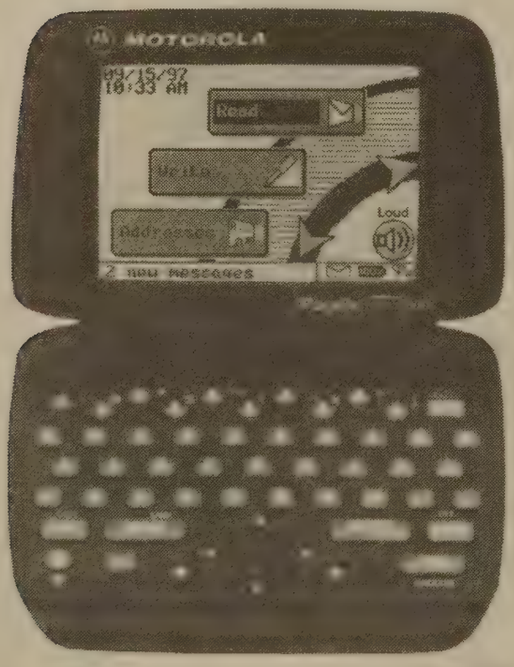
VISA MasterCard AMERICAN EXPRESS

The Motorola PagerWriter 2000—

Versatile Pocket Communicator

By Douglas J. Nakakihara

The LCD screen, which sits opposite the keyboard, is about 1.5" x 2.5" in size, well beyond the size of mere mortal alphanumeric pager and wireless phone displays. It is capable of displaying ten lines of 30 characters, excluding the header and bottom graphical buttons.



I've already got a PalmPilot and a cell phone attached to my waist (using a Case Logic cassette carrier), but I've still been eyeing the alphanumeric pagers for a while. Previously, there seemed to be no (reasonably) compelling reason to lug another gadget around.

Well, Motorola's PageWriter 2000 has quite possibly changed my mind. This two-way pager not only lets you communicate with other pagers, but it also connects you to the whole world via Internet email—inbound and outbound! Plus, using an Internet faxing service, you can also add faxing to the feature list of this cool device.

The PageWriter 2000 operates on a rechargeable NiMH battery and will reportedly give you a full week of uninterrupted usage. Plus, it will recharge on the included plug-in base in only an hour. To conserve battery power, the display will go off after a certain time period. You merely have to tap any button to bring it back to life. All messages will remain even if your battery dies.

The PageWriter 2000 is based on Motorola's FLEX Platform software and is actually more akin to a handheld computer than a pager. (Interestingly enough, the PageWriter 2000 actually uses the same microprocessor, the Motorola MC68328, as the PalmPilot.) It has its own operating system and comes with 1MB of Flash memory, plus 256KB of static RAM for 1.25MB of total memory. You could actually load third-party applications and run them on the pager. (This requires the optional PC docking station to transfer the files.) However, right now there are only a couple of programs available.

The basic unit costs $330 and includes the PageWriter 2000, holster belt-clip, battery, and charger. For $30 more, you get the deluxe kit which replaces the charger with the PC docking station, which will also charge the battery.

Features And Capabilities

You might have seen these units around or advertised on TV. At about 3.5" x 2.75" x 1", they are a little on the large side compared to your run-of-the-mill pager. This bulk is mostly due to the tiny keyboard that sits inside its clamshell-design case.

This is essentially a full QWERTY keyboard, albeit half the size of your standard numeric keypad. Touch typists like myself will find using the keyboard a bit tedious, not only because of its size, but also because each key requires a relatively strong push. I would have preferred buttons requiring a lighter touch. (Of course, those one-finger typists out there might totally disagree with me.)

Another complaint I have about the keyboard is that it lacks a "page down/up" feature, so scrolling through a message requires you to hold the down button. This is a minor complaint, but a nuisance nonetheless.

The LCD screen, which sits opposite the keyboard, is about 1.5" x 2.5" in size, well beyond the size of mere mortal alphanumeric pager and wireless phone displays. It is capable of displaying ten lines of 30 characters, excluding the header and bottom graphical buttons. You also have the option of doubling the font size for five lines of 15 characters. These features make reading messages on the PageWriter 2000 a pleasure.

In fact, the included belt-clip attachment allows you to flip the unit open without removing it, and still easily read the display—really a nice feature. The display is also backlit for low-light viewing.

The interface is menu-driven. You must navigate through "buttons" using the tab key or the four-way rocking directional button. Some keyboard shortcuts allow you to select menu items by pressing the first letter of the item. This makes it much easier to navigate around.

Messages can be organized similarly to the way they are on standard email applications. There is an Inbox, an Outbox, a Draft, and a Sent folder. You can set up custom folders as well, and even define filters for Inboxes. This works by applying up to three independent filters for an Inbox. If the defined words are contained in the message, it is directed to the specified Inbox. Folders can also have independent "clean up" rules which determine when their contents are deleted, if ever.

BG COMPUTER

SPECIALIZING IN NETWORKING REPAIRS FOR ALL SIZE BUSINESSES

CORPORATE PO'S WELCOME!

Upgrade Super Sale

- Intel 430 TX chipset M/B with 512K cache
- AMD K6-200MHz MMX CPU w/cooling fan
- 32MB 60ns SDRAM
- Fujitsu 3.2GB Ultra DMA hard disk drive
- Mitsumi 1.44MB floppy disk drive
- Acer 24X IDE CD-ROM drive
- S3 PCI SVGA card w/2MB RAM
- Acer 3D 16-bit sound card
- Mini tower case w/ 230W power supply
- Genius Internet P/S2 mouse
- Win 95 105-key keyboard
- Parts only
- P60W Multimedia Speakers

$499

AMD K6® 233MHz MMX $529
Pentium® 166MHz MMX $529
Pentium® 200MHz MMX $539
Pentium® 233MHz MMX $569

233MHz Monthly Specail

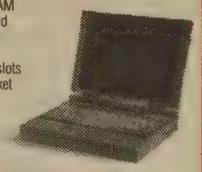
- Intel 430TX Chipset MB w/512K Cache
- AMD K6-233MHz MMX w/cooling fan
- 32MB 10ns SDRAM
- Fujitsu 3.2GB Ultra DMA IDE hard disk drive
- Mitsumi 1.44 MB floppy disk drive
- Acer 24X IDE CD-ROM drive
- ATI 3D Xpression+PCI w/4MB SGRAM
- Acer 3D FX 16-bit sound card
- Rockwell 56K V.90 fax modem w/voice
- Mid-tower case w/ 230W power supply
- Genius 2-button netmouse
- Win 95 105 Keyboard
- P60W Multimedia Speakers
- Win 95 CD & Manual
- 1-year warranty on parts and labor

$669

AMD K6® 266MHz MMX $699
Pentium® 166MHz MMX $679
Pentium® 200MHz MMX $689
Pentium® 233MHz MMX $729

Notebook 6400 Special

- 12.1" Active TFT Display
- Motherboard with 512K cache
- Pentium 233MHz MMX W/COOLOING FAN
- 32MB EDO RAM (exp. 128MB)
- Removable 3.5GB Toshiba hard disk drive
- Revovable 1.44MB floppy disk drive
- Built-in 20X IDE CD-ROM drive
- Built-in SVGA card with 2MB RAM
- Built-in 3D 16-bit audio on board
- Built-in microphone & speakers
- 33.6K PCMCIA fax modem
- 1-Type III & 2-Type II PCMCIA slots
- NiMH Battery & 2nd barrely bracket
- Track pad mouse
- Window 95 CD and manual
- Carrying case



$1549

Options:
Memory: 16MB/32MB/64MB . $49/$79/$139
HDD: 2.1GB/3.1G . . . . . $179/$229
Fax: 33.6/56K/NIC. . . . . $79/$99/$99

Notebook 6100 Special

- 12.1" Active TFT Display
- Motherboard with 512K cache
- Pentium® 233MHz MMX w/cooling fan
- 32MB EDO RAM (exp. 128MB)
- Removable 3.5GB Toshiba hard disk drive
- Removable 1.44MB floppy disk drive
- Built-in 20X IDE CD-ROM drive
- Built-in SVGA card with 2MB RAM
- Built-in 3D 32-bit audio on board
- Built-in microphone & speakers
- 33.6K PCMCIA fax modem
- 1-Type III & 2-Type II PCMCIA slots
- NiMH Battery & 2nd barrery bracket
- Track pad mouse
- Window 95 CD and manual
- Carrying case

$1649

Options:
Memory: 16MB/32MB/64MB . $49/$79/$139
HDD: 2.1GB/3.1G . . . . . $179/$229
Fax: 33.6/56K/NIC. . . . . $79/$99/$99

Pentium® II Super Sale

- Intel 440LX Chipset MB w/USB ports
- Pentium II 233MHz MMX w/cooling fan
- 32MB 10ns SDRAM
- Fujitsu 3.2GB Ultra DMA IDE hard disk drive
- Mitsumi 1.44MB floppy disk drive
- Acer 24X IDE CD-ROM drive
- Diamond 3D 4000 AGP w/4MB RAM
- Acer 3D FX 16-bit Sound Card
- Rockwell 56K V.90 fax modem w/voice
- ATX mid tower case w/235W power supply
- 2-button P/S2 mouse
- Win95 105-key keyboard
- P60W multimedia speakers
- Windows 95 CD & Manual
- 1-year warranty on parts and labor

$799

Pentium® II 266MHz MMX. . . . $849
Pentium® II 300MHz MMX. . . . $969
Pentium® II 333MHz MMX. . . $1069

Pentium® II Office Station

- Genuine Intel AL440LX Motherboard w/AGP & onboard audio
- Pentium II 233MHz MMX w/cooling fan
- 64MB 10ns SDRAM
- Fujitsu 4.3GB Ultra DMA IDE hard disk drive
- Mitsumi 1.44MB floppy disk drive
- Toshiba 24X IDE CD-ROM drive
- ATI Xpert@work AGP w/4MB SGRAM
- Yamaha onboard sound card
- Rockwell 56K V.90 fax modem w/voice
- ATX mid tower case w/235W power supply
- 2-button P/S2 mouse
- Win95 105-key keyboard
- P300W multimedia speakers
- Windows 95 CD & Manual
- 1-year warranty on parts and labor
- Microsoft Office 97

$1069

Pentium® II 266MHz MMX . . .$1139
Pentium® II 300MHz MMX . . .$1259
Pentium® II 333MHz MMX . . .$1369
Pentium® II 400MHz MMX . . .$CALL

Pentium II Server/Workstation

- Genuine Intel AL440LX Motherboard w/AGP & onboard audio
- Pentium II 233MHz MMX w/cooling fan
- 64MB SDRAM
- Fujitsu 6.4GB Ultra DMA IDE hard disk drive
- Mitsumi 1.44MB floppy disk drive
- Toshiba 24X IDE CD-ROM drive
- Diamond 3D 4000 AGP w/4MB RAM
- 3COM 3C905B-TX 100Base PCI NIC
- Yamaha onboard sound card
- ATX mid tower case w/235W power supply
- 2-button P/S2 mouse
- Win95 105-key keyboard
- P60W multimedia speakers
- 1-year warranty on parts and 5-year labor

NT WorkStation 4.0
$1089
NT Server 4.0 (5 users)
$1199

Pentium® II 266MHz . . . . . add $60
Pentium® II 300MHz . . . . add $170
Pentium® II 333MHz . . . . add $280

DVD SUPERSTATION

- Genuine Intel SE440BX 100MHz bus MB w/AGP & PCI onboard audio
- Pentium II 350MHz MMX w/Cooling fan
- 128MB SDRAM
- Fujitsu 6.4GB Ultra DMA IDE hard disk drive
- Mitsumi 1.44 MB floppy disk drive
- Creative Labs DVD ROM Drive
- MPEG II PCI decoder card
- ATI Xpert@play AGP w/8MB SGRAM
- Crystal PCI sound card
- Rockwell 56K V.90 fax modem w/voice
- ATX mid tower case w/235W power supply
- 2-button P/S2 mouse
- Win95 105-key keyboard
- Altec Lansing ACS45 multimedia speakers with subwoofer
- Window 95 CD & Manual
- 1-year warranty on parts and labor

$1779

Pentium II 400MHz MMX . . . $1999

MOTHERBOARDS

INTEL®
Seattle SE440BX Pentium II MB w/PCI audio (100MHz bus) $199
Atlanta AL 440LX Pentium II MB w/ audio. $169
Atlanta AL 440LX Pentium II MB w/out audio $159
Dakota DK 440LX Dual Pentium II MB w/audio & SCSI $459

ASUS
TX97-X 430TX w/ 512K $109
P2L97 440LX chipset Pentium II MB (ATX). $135
P2L97-S 440LX chipset Pentium II MB w/SCSI $219
P2L97-D 440LX chipset Dual Pentium II MB $259
P2L97-DS 440LX chipset Dual Pentium II MB w/ SCSI. $335

OTHERS
MB 430TX chipset w/512K. $79
MB 440LX chipset for PII $109

CPU

INTEL®
Pentium® 166/200/233 MMX . . $96/104/139
Pentium® II 233MHz (OEM) $183
Pentium® II 233MHz (Box) $199
Pentium® II 266MHz (OEM) $237
Pentium® II 233MHz (Box) $251
Pentium® II 300MHz (OEM) $365
Pentium® II 300MHz (Box) $389
Pentium® II 333MHz (OEM) $473
Pentium® II 333MHz (Box) $489
Pentium® II 350MHz (Box) $555
Pentium® II 400MHz (Box) $779

AMD
K6-200/233 MMX. $71/83
K6-266 MMX. $108
K6-300 MMX. $149
Ball Bearing Cooling Fan for Pentium/AMD CPU. . $8
Ball Bearing Cooling Fan for Pentium II CPU. . . . $15

MEMORY

32MB 10NS SDRAM $39
64MB 10NS SDRAM $79
128MB 10NS SDRAM $149
PC-100 32MB 7ns SDRAM $49
PC-100 64MB 7ns SDRAM $99
PC-100 64MB 7ns SDRAM $189

CD-ROM

Acer 24X CD ROM. $59
Toshiba 24X CD ROM $62
Toshiba DVD Multimedia Kit. $259
Toshiba DVD-ROM (SDM1102)
Real Magic MPEG2 card
Toshiba 32X SCSI CD ROM $98

FLOPPY DRIVE

Mitsumi 1.44MB Floppy Drive $19
L/S 120MB floppy drive $109

HARD DISK DRIVE

FUJITSU
MPB3032 3.2GB Ultra DMA $139
MPB3043 4.3GB Ultra DMA $159
MPB3064 6.4GB Ultra DMA $199

VIDEO CARD

DIAMOND MULTIMEDIA
Stealth 3D 2000 Pro PCI 2/4MB $53/63
Stealth 3D 4000 Pro PCI 2 . . . . . $55
Stealth II 220 PCI 4MB. $89
Viper 330 AGP 4MB SGRAM $93
Monster 3D 12MB $275
Monster 3D II 8MB. $209
Fire GL 1000 Pro 8MB $179

ATI
3D Xpression+PCI 2/4MB SGRAM. . . $68/79
Xpert@work 4/8MB AGP. $125/165
Xpert@play 4/8MB AGP $159/182
All in Wonder Pro 4/8MB PCI/AGP $153/175

OTHERS
S3 chipset PCI SVGA w/ 2MB. $35

SOUND CARD

SoundBlaster 16-PNP. $39
SoundBlastrer AWE64 (value) $69
Acer 3D FX 16-bit Sound card $19

MODEM

USR X2 56K internal w/voice $89
Diamond Supra 56K internal w/voice . . . $73
Rockwell 56K internal w/ voice. $59
Rockwell 33.6K internal w/ voice. $39

CASES

Mid Tower Case w/ 230W PS $29
ATX Mid Tower case w/ 230W PS. $59
ATX Full Tower case w/230W PS. $89

KEYBOARD & MICE

Win95 105 Keyboard $11
Keytronic Win95 keyboard $18
Erogonomic Natural keyboard. $29
3-button serial mouse $6
Genius 2-button netmouse $10
NEC 2-button mouse $10

SPEAKERS

ALTEC LANSING
ACS45 Power Cube w/ subwoofer. $72
ACS53 Computer SPK w/ subwf $105

YAMAHA
YSTM7W speakers. $39
YSTM15W speakers. $69
SYSTEM 45 . . . . . $139

OTHERS
P80W Amplified Speakers $9
P300W Amplified Speakers. $29

MONITORS

SONY
CPD 100ES 15" 0.25 1280X1024 . . . . . $288
CPD 100GS 15" 0.25 1280X1024. . . . . $345
CPD 200ES 17" 0.25 1280X1024 . . . . . $539
CPD 200GS 17" 0.25 1280X1024. . . . . $628
GDM 400PS 19" 0.25 1600X1200 . . . . $965
GDM 500PS 21" 0.25 1600X1200 . . . $1399

NEC
M700 17" 0.25 1280X1024 . . . . . $569
E1100 21" 0.28 1600X1200 . . . . . $1069
P1150 21" 0.28 1600X1200 . . . . . $1199

OTHERS
14" 0.28 1024X768 SVGA $129
15" 0.28 1280X1024 SVGA $189
17" 0.28 1280X1024 SVGA $299

MONTHLY SPECIALS

FUJITSU HARD DRIVE SPECIAL

3-year warranty on all drives

Ultra DMA IDE Hard Drives:

MPA3032 3.2GB. . $139

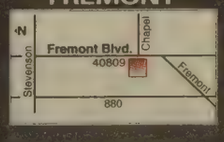
MPA3045 4.3GB. . $159

MPA3064 6.4GB. . $199

SUNNYVALE

505 W. Olive Ave.
Bldg. 100, Suite 123
Sunnyvale, CA 94086
Tel: (408) 733-8882
Fax: (408) 733-6752

FREMONT



40819 Fremont Blvd.
Irvington Palms Plaza
Fremont, CA 94538
Tel: (510) 623-8297
Fax: (510) 623-8299

OPEN: M-F 9-6 SAT/SUN 10-6 • Financing Available on Approved Credit • $0 Down - Call for Details • Prices subject to change without notice

VISA MasterCard

deleted, if ever.

Not only can the message be stored in a special Inbox, but you can also override the alert method. For example, a message with "BABY-COMING!" in it might be set to always sound an audible alert, even when you have the pager set to vibrate or be silent on incoming messages. This alert override is extremely flexible in that you can have a different setting for each of the possible alert settings: audible, vibrate, or silent.

Communicating

Note that to send a page to another pager, the other pager must also be on the same network (SkyTel, for now). However, since you can also send email to anyone with an email address, this is not as great a limitation as it otherwise would be. There is also an interesting time-saving feature that allows you to send short prefabricated messages as responses, like "yes," "will call later," etc. If you wish, you can set up your own "canned" responses.

People can send you messages using regular Internet email or from the SkyTel Web site. They can also call a toll-free phone number to send you a numeric or text page. The latter will cost you extra, however, and involves talking to an operator. The caller will need to know your PIN, but for a small charge you can have a personal access number set up for you.

I set up a forwarding-rule in Microsoft Outlook that would forward any message to the pager if it was less than 1K. This didn't always work as desired, due to the "invisible" routing attachments on messages and the fact that Outlook didn't always seemed to realize the correct file size.

Of course, you might also want to use this type of setup to forward email from specific people. You'd get either the whole message or at least a truncated portion. Since it would be forwarded, you'd still have a duplicate on your PC. This works great in a situation where you can be connected to the Internet 100% of the time on your desktop PC. It would be more problematic in a dialup environment.

This is a nationwide service, so there are no roaming charges if you travel away from home.

You can also assign an alarm to a message. The software allows you to pick a time and date for it to go off. You have the option of repeating the alarm daily, weekly, monthly, or yearly. I really liked this feature because I am constantly forgetting meetings. By combining an alarmed message with the vibrating ring, it makes the reminder pretty hard to ignore. Moreover, the alarm will sound again and again every minute or so, until you read the message.

The VCR-like alarm setting functions are not the easiest to use, but they get the job done. I prefer the PalmPilot-style interface where you select the date from a graphical calendar.

Recordkeeping

Besides operating as a two-way communications device, you can also store names, phone numbers, physical addresses, email addresses and pager PINs on the PageWriter 2000.

With the optional docking station, you can

AAA MEDIA, INC
YOUR BACK-UP SOLUTION SPECIALIST
TOLL FREE! 888-252-6291
888-AAA-MEDIA
TEL: 818-718-9625
FAX: 818-718-9626
http://www.aaamedia.com ▲ e-mail-sales@aaamedia.com
PRICES SUBJECT TO CHANGE

4 MM DAT
SPECIAL!
WD-3100 EXT 2 GB $517

*WANGDAT-3100	2 GB	$517
*ARCHIVE 4322	2-4 GB	$573
HP C1533A	4-8 GB	$727
AIWA GD-8000	4-8 GB	$657
CDT 8000	4-8 GB	$627
SONY SDT 5000	4-8 GB	$627
SONY SDT 7000	4-8 GB	$727
SONY SDT 9000	12-24 GB	$927

* INCLUDES EXTERNAL PKG.

AUTOLOADER
HP'S INDUSTRY LEADING AUTOLOADER

*ARCH. 4584	16 GB	$798
ARCH. 4592	20 GB	$797
ARCH. 4586	(48-96 GB)	$1027
*HP C1553	24-48 GB	$1697

* INCLUDES EXTERNAL PKG.

8MM EXABYTE

EXB 8200	2-3 GB	$397
*EXB 8205XL	2.3-7 GB	$1127
EXB 8500	5 GB	$897
EXB 8500C	5-10 GB	$997
EXB 8505	5-10 GB	$1297
EXB 8505XL	7-14 GB	$1527
*EXB 8700	14 GB	$795
EXB 8900	20-40 GB	$2727
SONY SDX-300/C	25-50 GB	$2627

* INCLUDES EXTERNAL PKG.

HARD DRIVE

SEAGATE ST32550N 2.3GB BARRACUDA	$427
SEAGATE ST34371N 4.3GB BARRACUDA	$697
QUANTUM QM34550W 9.1GB FAST WIDE	$897
SEAGATE ST19101N 9.1 GB CHEETAH	$997
SEAGATE ST42345N 23GB FAST WIDE	$2127

OPTICAL DRIVE
VALU ADD-ON SONY AUTOMATIC OPTICAL CLEANER W/ ANY 1.3 GB PURCHASE ONLY $67

FUJITSU 2512A	230 MB	$427
*HP C1716C	650 MB	$697
SONY E501	650 MB	$737
APEX MC4600	4.6 GB	$1295
*HP C1716T	1.3 GB	$1097
MAXOPTIX T-3	1.3 GB	$CALL
SONY SMO-F521	1.3 GB	$997
HP C1113F	2.6 GB	$1997
*MAXOPTIX T-4	2.6 GB	$1497
SONY SMO-F544	2.6 GB	$1677

* INCLUDES EXTERNAL PKG.

SPECIAL! C1716C OPTICAL DRIVE 650 MB $697

QUANTUM DLT
HIGH PERFORMANCE BACK-UP!

DLT 600	6.0 GB	$1027
DLT 2000	10-20 GB	$1997
DLT 3000/20XT	15-30 GB	$2327
DLT 4000	20-40 GB	$2627
DLT 7000	35-70 GB	$5527

9 TRACK
LOW PRICES!

HP-07980	$CALL
HP-88780	$CALL
CIPHER M995	$CALL
M4 9914	$CALL

3480 / 3490 / 3990E
DEAL!

DST-9480	$CALL
STC-4220/4280	$CALL
FUJ 2485/2488	$CALL

MEDIA
KAO 3M FUJI TDK

4MM 60/90	$4.25/5.25
4MM 120	$10.00
8MM 54/112	$3/5.50
8MM 160	$10.50
DLT IIIXT	$CALL
DLT IV	$CALL
CDR 74 M	$1.95
ZIP 100	$9.50

OPTICAL
HP SONY MAXELL

1024B/S 1.3 GB	$29.00
1024B/S 2.6 GB	$35.00

LIBRARIES

ADIC 1200	24-96 GB 4MM	$1297
EXB 10i	50 GB 8MM	$1597
EXB 10H	150 GB 8MM	$4327
DLT 4700	280 GB DLT	$7127
HP 20XT OPT.	20 GB	$3157

LARGEST DISTRIBUTER OF STORAGE PRODUCTS ▲ BEST PRICE & PRODUCT ▲ GOVERNMENT, SCHOOL PO'S, QUANTITY ORDERS WELCOME ▲
ALL DRIVES INCL NOVABACK SOFTWARE ! ▲ FOR EXTERNAL PACKAGE ADD $98 FOR ALL HALF-HEIGHT / $115 ALL FULL-HEIGHT ▲

LASER PRINTER REPAIR

BUSINESS & HOME SOLUTIONS SINCE 1991
MICROSONIC OFFERS THE BEST SERVICE IN THE BAY AREA!

FREE DIAGNOSTICS FOR PCS & PRINTERS

SONIC STUDENT

Mini-Tower Case
1.44 Floppy Drive
Intel Triton 430TX
512K Motherboard
Intel P-100 CPU/Fan
16MB RAM
2.1GB Hard Drive
S3 Virge 2MB Video
Keyboard
Mouse
15" Monitor

P-133 $495
P-166 MMX $515
P-200 MMX $525
P-233 MMX $600

$485

SONIC STUDENT MULTIMEDIA

Mini-Tower Case
1.44 Floppy Drive
Intel Triton 430TX
512K Motherboard
Intel P-100 CPU/Fan
16MB RAM
2.1GB Hard Drive
S3 Virge 2MB Video
Keyboard
Mouse
24X CD-ROM
Soundcard
15" Monitor
Speakers

P-133 $550
P-166 MMX $570
P-200 MMX $580
P-233 MMX $655

$540

SONIC FAMILY

Midi-Tower Case
Intel Triton 430TX
512K Motherboard
Intel P-166 MMX CPU/Fan
32MB RAM
3.1GB Ultra DMA Hard Drive
S3 Virge 4MB Video Card
1.44 Floppy Drive
Keytronics Keyboard
Logitech Mouse
15" Monitor

P-200 MMX $555
P-233 MMX $650

$545

SONIC FAMILY MULTIMEDIA

Midi-Tower Case
Intel Triton 430TX
512K Motherboard
Intel P-166 MMX CPU/Fan
32MB RAM
3.1GB Ultra DMA Hard Drive
S3 Virge 4MB Video Card
1.44 Floppy Drive
24X CD-ROM
SB Sound Card
Keytronics Keyboard
Logitech Mouse
15" Monitor
Speakers

P-200 MMX $635
P-233 MMX $710

$625

SONIC ASUS MULTIMEDIA

Medium Tower Case
1.44 Floppy Drive
ASUS 430TX Motherboard
Intel P-166 MMX CPU/Fan
32MB RAM
4GB Ultra DMA Hard Drive
SVGA 4MB S3 Virge Card
Keytronics Keyboard
24X CD-ROM
AWE Sound Card
MS Mouse/Pad
15" Monitor
Speakers

P-200 MMX $779
P-233 MMX $805

$769

SONIC P-II

Medium ATX Case
ASUS P2 L97 Motherboard
Intel P-II 233MHz CPU/Fan
32MB RAM
4GB Ultra DMA Hard Drive
Matrox Millennium II 4MB Card
US Robotics 56K Fax/Modem
24X CD-ROM
SB AWE 64
Keytronics Keyboard
MS Mouse/Pad
17" Monitor
Speakers

P-II 266MHz $1240
P-II 300MHz $1360
P-II 333MHz $1490

$1195

SONIC POWER USER

Medium ATX Case
1.44 Floppy Drive
Intel 440BX Motherboard
Intel P-II 350MHz CPU/Fan
64MB RAM
4GB Ultra DMA Hard Drive
Diamond Fire CL 1000 PCI 4MB
V.90 Fax/Modem
32X CD-ROM
Soundblaster AWE 64
Keytronics Keyboard
MS Mouse
17" Monitor .28dpi
Speakers

P-II 400MHz $2040

$1725

SONIC GRAPHIC STATION

Medium ATX Case
1.44 Floppy Drive
Intel 440 BX Motherboard
Intel P-II 350MHz CPU/Fan
256MB RAM
6.0GB Ultra DMA Hard Drive
Matrox Millennium II 8MB Card
V.90 Fax/Modem
MS Ergonomic Keyboard
32X CD-ROM
SB AWE 64
MS Mouse
17" Monitor .28dp
Speakers

$2050

NT WORKSTATION

Midi Tower Case
1.44 Floppy Drive
ASUS ASP 97-V / 1MB VGA built-in
32MB RAM
233MHz MMX CPU
Cooling Fan
3.1GB HDD
104 Enhanced Keyboard
Mouse
15" Monitor .28dpi
32X CD-ROM
Network Card

$610

NT DELUXE STATION

Medium ATX Case
1.44 Floppy Drive
ASUS P2L 97-S AGP Mainboard
PII 233 Intel/Fan
256MB Memory
24X CD-ROM
SVGA S3 Virge
9GB Wide SCSI Hard Drive
56K Fax/Modem
104 Enhanced Keyboard
Mouse
Network Card
3COM 905
Iomega Zip Drive

P-II 333MHz $2146
P-II 350MHz $2225
P-II 400MHz $2465

$2146

MICROSONIC TOP-OF-THE LINE

Medium ATX Case
1.44 Floppy Drive
Gigabyte GA-686BX
Mainboard 233-633MHz
PII 450MHz Intel CPU/Fan
256MB RAM
SVGA 8MB S3 Graphics Card
8GB Ultra DMA Hard Drive
32X CD-ROM
56K .90V US Robotics
Modem
Ergonomic MS Keyboard
MS Mouse
17" .26 Monitor

NEW!
NEW!
NEW!

CALL

NOTEBOOKS

IBM • Fujitsu • Toshiba • Compaq • Digital • Rix

UPGRADES & ACCESSORIES

MOTHERBOARDS

ASUS
SP97-V w/VGA On-board $78
TXP4-X Intel 430TX $96
TX97L Intel 430TX $106
TX97X Intel 430TX $111
TX-97XE Intel 430TX $111
P-II L97-Pentium II $123
P-II L97-SCSI $205
P-II L97-Dual $245

GIGABYTE
GA-586TZ Intel 430TX 300MHz ... $82
GA-686LX (Pentium II) $115
GA-686BX Intel 440BX 550MHz .. $145
Pentium 35-233MHz $65

GRAPHICS CARDS

S3 Virge 2MB $31
S3 Virge 4MB $39
Stealth 3D 4000 4MB PCI $57
Diamond Fire GL 4MB PCI $115
Millennium II 4MB PCI/AGP $121

SOUNDCARDS

ESS 1869 3D 16Bit $12
Yamaha 16Bit $12
SoundBlaster 16Bit $33
SoundBlaster AWE64 ..... $60

FAX/MODEMS

Supra 56K w/Voice $59
USR 56K w/o Voice $75
Gaton 56K $60
Gaton 33.6K $49

HARD DRIVES

FUJITSU
Fujitsu 2.6GB $126
Fujitsu 3.2GB $131
Fujitsu 4.3GB $151
Fujitsu 6.4GB $200

SAMSUNG
Samsung 3.2GB $128
Samsung 4.3GB $135

WESTERN DIGITAL
Western Digital 3.2GB $139
Western Digital 4.3GB $155
Western Digital 6.4GB $200

CD-ROMS

24X $44
32X $53
24X SCSI $85

NETWORKING

NE2000 PnP $13
NE2000 PnP PCI $15
3COM ISA 509 Combo $61
3COM PCI 905B $59

MONITORS

ZYNC
14" SVGA 1024x768 .28dpi $115
15" SVGA 1280x1024 .28dpi ... $134
17" SVGA 1280x1024 .28dpi ... $245
17" SVGA .26dpi $270

SAMSUNG VIEWSONIC
WE BEAT EVERYONE'S PRICE ON ALL MODELS

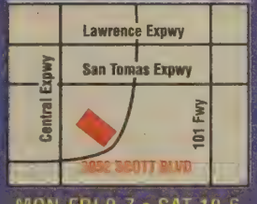
Sony, Optiquest, Hitachi & Mac
BEST PRICE!
CALL

Micro SONIC COMPUTER

408•727•4362

408•727•5528 (FAX)

CORPORATE POs WELCOME



MON-FRI 9-7 • SAT 10-6
3052 SCOTT BLVD.
SANTA CLARA

PRICES AND AVAILABILITY SUBJECT TO CHANGE WITHOUT NOTICE. LIMITED STOCK ON SALE ITEMS. DEALER INQUIRIES WELCOME. NOT RESPONSIBLE FOR TYPOGRAPHIC ERRORS

manage the address book, as well as file and print messages on your PC. This feature also allows you to backup all of the application and data files. The docking station actually uses an IR interface port, which is built into the unit. This may possibly lead to other uses for the port, like unit-to-unit data transfer, printing, etc.

Services Available

At this time, SkyTel is the only company offering service for the PageWriter 2000; however, other companies are expected to join in. Prices start at $24.95 for 600 ten-character blocks of inbound or outbound traffic. (Note that any message over 500 characters will be truncated, so you won't use your entire allotment with one oversized erroneous message.) If you want operator-assisted messaging, it costs $0.65 per each 80-character block. This is a nationwide service, so there are no roaming charges if you travel away from home.

I had a chance to travel to Los Angeles and took the PageWriter 2000 along to see how it performed away from home. Email worked flawlessly, and I received replies just as usual, including the information telecasts described above. I was in a hilly area in a parking structure at one point, so the received messages came in somewhat garbled. However, the error-detection feature gave me the option to have them redelivered later and they came through perfectly!

SkyTel's "Advanced Messaging Network" offers some unique advantages over normal paging networks. First, is their "store and deliver" technology, which guarantees delivery of message, even when your pager is out of the service area or turned off. Messages will be automatically re-sent.

Also, because this is a two-way network, there is built-in error detection/correction which will automatically re-send garbled messages.

A really cool feature just added is caller ID on numeric pages. This will display caller information, when available, on numeric pages. The service is optional and costs an additional $4.95 per month; however, the caller ID text doesn't count toward your monthly message allotment.

To send a page to another pager, the other pager must also be on the same network (SkyTel, for now). However, since you can also send email to anyone with an email address, this is not as great a limitation as it otherwise would be.

Info Telecasts

A cool part of the basic PageWriter 2000 service is a twice-daily Dow Jones report. It gives you an up-to-the-minute stock report, as well as a few headline news items. I like it because it is brief, concise, and to the point—no distracting animated GIFs.

Obviously, if the PageWriter takes off, there will probably be companies popping up with other types of broadcast information reports,

HEWLETT PACKARD digital COMPAQ sun microsystems

On-Site Printer, Computer, & Network Service

1 Hour • Most Repairs

☆ Quick Response & Service Time
☆ Complete Repairs
☆ Maintenance
☆ Warranty Service
☆ Upgrades
☆ Leasing
☆ Short-Term Rentals
☆ Serving the Entire Bay
☆ Service Center

Call Us, We're Different!

Since 1987

GIGABYTES

510-440-8032 Fax 510-440-9099
47061 Warm Springs Blvd., Fremont, CA 94539

apple Microsoft IBM TOSHIBA NOVELL.

A Fresh New Place For Fresh New Macs

PowerMac 9600/300
AppleVision 750 17"
$3099
SAVE $150+

Free RealPC
Runs PC Software

G3/233
LG 17" Monitor
Bundle
$1820
LIMITED QTY!

Motorola Clone
604e/200 DT
$999
• Loaded 16/1.2G/12xCD/v2
• Identical to StarMax 4000

PowerMac		
G3/300MT	64/6G/24x	$3010
G3/266MT	32/6G/24x/Zip/AV	$2210
G3/266DT	32/4G/24xCD/Zip	$1745
G3/233DT	32/4G/24xCD	$1470
9600/300	64/4G/24xCD	$2399
8600/250	32/4G/24xCD	$1699
(above w/ internal Zip)		+$105
7300/200	32/2G/12xCD	$1399
MacClone		
604e/200T	64/4G/24xCD	$1299
604e/200D	16/1.2G/12xCD	$999
PowerBook		
G3/250	32/5G/20xCD	$4299
Apple 33.6k PCMCIA		+$60
Memory		
G3 SDRAM	32/64/128	$57/136/264
PM DIMM	32/64	$47/122

AppleVision		CPU Upgrade	
20" 850	$1389	604e/233	$349
17" 750	$699	604e/200MP	$449

All products are brand new. Original Apple warranty. Competitive pricing; **Check web for latest price.** Credit cards 2.5% extra. CA 8.25% tax. Attractive volume discount available. Email: sales@mactica.com Tel: 650-742-9782.

MACTICA
1-888-666-5147
www.mactica.com

We Make the Latest Technology EASY
Since 1992 we've provided you solutions

Our Services Include:

- Complete Networking Services Including Conversion & Troubleshooting
- Software Configurations
- Custom System Configuration
- Monitor and Printer Repairs
- On-site Service

Microsoft WindowsNT

3Com® intel®

PERFORMANCE SYSTEMS

- Intel Pentium® Processor
- Intel Anchorage Motherboard
- 512K Pipeline Burst Cache
- 32MB SDRAM
- 4.3GB Hard Drive
- 32X CD-ROM Drive
- 1.44MB Floppy Drive
- Optiquest Q51 Monitor 13.7" Viewable
- Diamond Stealth 3D w/4MB
- Sound Blaster 16 Compatible
- PS2 Mouse
- Amplified Speakers
- Mini-Tower Case w/PS
- Maxi Nova Keyboard
- Windows 95

P-200MMX.....$959
P-233MMX.....$999

SUPER SYSTEMS

- Intel Atlanta Motherboard
- 64MB SDRAM
- 6.3GB WD Hard Drive
- Matrox Millennium w/4MB WRAM
- Teac 1.44 Floppy Drive
- Toshiba 32X CD-ROM Drive
- Integrated Sound Card
- ADI 5P 16" Viewable Monitor
- Keytronic Keyboard
- ATX Medium Tower Case
- Multimedia Speakers
- Windows 95
- Microsoft IntelliMouse

Pentium® II-233MHz $1,509
Pentium® II-266MHz $1,569
Pentium® II-300MHz $1,709
Pentium® II-333MHz $1,829
Pentium® II-350MHz $2,069
Pentium® II-400MHz $2,259

Brand Name Savings

Western Digital 4.3GB Hard Drive $180

Lanpro 8-Port

Creative Labs DVD Encore II $279

Toshiba 32X CD-ROM Drive $79

15" Optiquest Q51 Monitor $199

Iomega IDE Zip Drive $100

MULTIMEDIA

Toshiba 24X CD-ROM Drive	$65
Toshiba 32X CD-ROM Drive	79
Sound Blaster 16	45
Sound Blaster 64	75
Stereo Speakers	from 15

NOTEBOOKS

IBM	CALL
Toshiba	CALL
Fujitsu	CALL

CASES

Mini Tower Case w/PS	$55
Baby AT Case w/PS	65
Mid-Tower w/PS	65
Full-Tower w/PS	85
ATX Mid-Tower Case	85
ATX Full-Tower	119

VIDEO CARDS

MGP Card	$15
Stealth 64, 3D 4MB	75
Stealth 4MB Viper	129
Matrox Mystique 4MB SGRAM	99
Matrox Millennium 4/8MB	149/189

KEYBOARDS

Maxi Nova	$25
Keytronic	30
Focus 2001	35
MS Natural Keyboard	75
Cirque Glidepoint Keyboard	89
Keytronic Wireless Keyboard	89

HARD DRIVES

2.5GB IDE	$149
3GB IDE	169
4.3GB IDE	189
6.4GB IDE	239
8GB IDE	349
2GB SCSI	239
4GB SCSI	309

MONITORS

SVGA NI 1024x768 .28dp 14"	$145
Samsung 500S 13.8" Viewable	$209
Optiquest Q51 13.7" Viewable	$199
ADI 5P 28dp16"Viewable	360
Sony 100ES	309
Sony 200ES	605
NEC A700	550

MICE

MS Mouse	$49
Logitech MouseMan	39
Logitech MouseMan Plus	59
Logitech Marble Trackman	79
Kensington Expert Mouse	89
Alps GlidePoint Mouse	69

CONTROLLERS

IDE I/O Controller High Speed	$29
Promise 2300 Plus	59
Adaptec 2940 PCI SCSI	169
Adaptec 2940U Wide SCSI	209

MOTHERBOARD & CPU

Pentium® 200MMX w/CPU	189
Pentium® 233MMX w/CPU	229
Pentium® II-233MHz w/CPU	389
Pentium® II-266MHz w/CPU	459
Pentium® II-300MHz w/CPU	589
Pentium® II-333MHz w/CPU	709
Pentium® II-350MHz w/CPU	879
Pentium® II-400MHz w/CPU	1139

PRINTERS

Hewlett Packard

DeskJet 720C	$299
DeskJet 890CXi	409
DeskJet 1000CXi	499
LaserJet 6LXi	399
LaserJet 6PXi	779
LaserJet 4000	1,169

MODEMS

US Robotics 33.6 Int./Ext.	$99/129
US Robotics 56.6 Int./Ext. V90	149/199
Megahertz 56K PCMCIA	249

TAPE BACKUPS

Colorado 4000S Int.	$399
Colorado 3.2GB Int.	179
Colorado 5GB Int./Ext.	219/269
Iomega Zip Drive IDE Int.	100
Iomega Zip Drive SCSI Ext.	159
Iomega 1GB Jaz Drive Int/Ext.	269/309

NETWORKING

8-Port Hub	$60
16-Port Hub	199
3COM 8-Port Hub	109
3COM 3C509 T/P/Combo	55/69
3COM 3C509 PCMCIA 10BT/Combo.	139/189
3COM 3C900TP/3C900C.	69/85
3COM 3C905.	79
SMC Elite Combo	75

MISCELLANEOUS

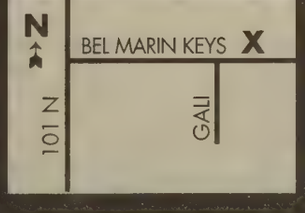
Various Cables/Adapters	CALL
Heat Sink w/Fan	$9
Printer Auto Switch	19
Joystick	from 15

BCS★A
Bay Computer Systems of America
Since 1992

(415) 382-1BCS
(1227)

Fax: (415) 883-8104
385 Bel Marin Keys Blvd, Suite C
Novato, CA 94949
Hours: M-F 10-6 SAT 11-4

MasterCard VISA



*Prices subject to change without notice *Not Responsible for typographical errors*

SERVING THE BAY AREA SINCE 1986

COMP EXPRESS

YOUR LOCAL COMPUTER SUPERSTORE

PC-EXPRESS Eagle II System

- Intel Pentium® II Processor w/MMX Technology™
- Intel 440LX AGP Chipset w/3ISA 4PCI, 1AGP Slot
- 32MB SDRAM/512K Cache
- 4.3GB Hard Drive Ultra DMA
- 1.44MB 3.5" Sony Floppy Drive
- Trident Graphics Card w/4MB
- 56K Flex Modem/Fax/Voice
- 24X Toshiba CD-ROM
- 32-Bit Sound Card Wavetable
- 60 Watt Speakers
- Win95 Enhanced Keyboard
- 2-Button Mouse
- ATX Mid-Tower Case
- Windows 95 on CD with Registration
- Monitor Sold Separately

$749

Pentium® II 266MHz..... $799
Pentium® II 300MHz..... $949
Pentium® II 333MHz 7.0GB $1149

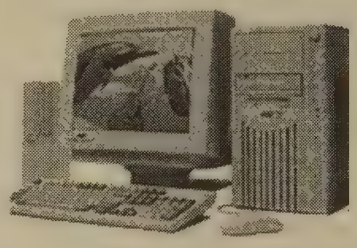
3F PhotoMaker ColorFlat Bed Scanner $69.99

FM Radio Card ISA $9.99

TOSHIBA

US Robotics The Intelligent Choice in Data Communications

Money Back Guarantee



Primax Full Page Sheet Fed Color Scanner $49.99

1 Year Warranty Parts & Labor

PC-EXPRESS Hawk System

- Intel Pentium® Processor w/MMX Technology™
- Intel TX Chipset w/4 ISA, 4 PCI
- 32MB SDRAM/512K Cache
- 2.1GB Hard Drive Ultra DMA
- 1.44MB 3.5" Sony Floppy Drive
- Trident 3D Graphics Card w/4MB
- 56K Flex Modem/Fax/Voice
- 24X Toshiba CD-ROM
- STB Soundrage 32 Sound Card
- 60 Watt Speakers
- Win95 Enhanced Keyboard
- 2-Button Mouse
- ATX Mid-Tower Case
- Windows 95 on CD with Registration
- Monitor Sold Separately

$599

Pentium® 233MHz $629

PC-EXPRESS Tsunami

- 400MHZ Pentium II w/MMX Technology
- A bit BX-6 Motherboard
- 100MHz bus clock
- Intel BX Chipset w/3 ISA, 4 PCI, 1 AGP
- 64MG SDRAM
- 8.4GB Hard Disk Drive
- 1.44MB 3.5" Floppy Drive
- Diamond 4MB AGP Video Card
- USR X2 Modem
- 32X Toshiba CD-ROM
- Sound Blaster AWE-64 Sound Card
- 2 USB 16550, Serial & 1 Parallel Port
- Windows 95 Enhanced Keyboard
- Microsoft IntelliMouse
- Windows 95 on CD w/Registration
- Mid-Tower ATX Case
- Monitor Sold Separately

$1799

PRINTERS

Hewlett Packard
DeskJet 670C 600x300..... $199
DeskJet 890CXi 600x300.... $399
LaserJet 6LXi 600dpi..... $389
EPSON
Stylus 400 Inkjet 720x720 ..... $199
Stylus 800 Inkjet 1440x720 ..... $299
NEC
Model 150C SuperScript InkJet/Color $129
OKIDATA
OKi Model 4W $199

MONITORS

Sony
17" 200ES SVGA Color $529
17" 200GS SVGA Color $599
21" 300PS SVGA Color $1349
NEC
17" A700 SVGA Color..... $449
17" M700 .25 SVGA Color..... $599
21" BJ 100 SVGA Color..... $1099
AOC
15" .28 SVGA Color..... $179
17" .26 SVGA Color..... $349
Viewsonic
17" P77S SVGA Color $499

NOTEBOOKS

NEC Versa
6200B18 P166MMX 32MB /2.0GB / 10x / 13.3XGA..... $1899
486 DX 475 Active Color 16/300MB retro $549

38495 Fremont Blvd. Fremont CA 94536 •(510) 794-9311
Regular Business Hours: M-F 9am-6pm Sat/Sun 11am-5pm

7-day money-back guarantee onselected products LSS S+H. Prices & availability subject to change without notice. Not responsible for typographical errors. Mention ad to get prices. All trademarks of their respective companies.

most likely on a paid-subscription basis.

PalmPilot Alternative

PalmPilot users can utilize the JP Systems One-Touch product, which allows you to connect a PalmPilot to a SkyTel AccessLink two-way pager and essentially get PageWriter 2000 features. You don't save any money though. The service cost is exactly the same, and the pager is about the same price as the PageWriter. Plus, you need to buy the One-Touch software and cable, which runs about $70. (Note: The One-Touch also works with MCI's interactive service.)

Since the pager is smaller than the PageWriter, you save a little on bulk, but then to use it with the PalmPilot you must physically connect it with a cable. However, the pager does have enough functionality to receive and send messages all by itself.

A nice thing about using this setup is that the PageWriter can use the PalmPilot's address book. This eliminates the redundancy of having multiple databases. The PalmPilot app requires about 70KB of memory. TCP/IP support is not required, so the PalmPilot Personal model will work just fine. (However, the One-Touch is not compatible with the PageWriter 2000.)

The PageWriter can use the PalmPilot's address book. This eliminates the redundancy of having multiple databases.

Alternatives

I see digital phones as being competition for the PageWriter 2000. These now offer inbound alphanumeric paging, as well as email capabilities.

The PageWriter has the advantage of being able to send outgoing messages including Internet email. It's also smaller than a digital phone, has full QWERTY keyboard, offers handheld PC-like features (address book, installable apps, etc.), is dockable to a PC, has vibrating ring standard, has a national-based service and more.

Of course, you can't make a person-to-person call.

In an emergency, or for someone who really needs to converse with another party in real time, you'd have to give the nod to the digital phone. However, that leaves a pretty big market for the PageWriter. (Of course, you could always carry both!) I probably do more correspondence via email than phone, but I'd be hard pressed to give up my wireless.

It's still a question of trade-offs. In my opinion, there is no product yet that covers all bases. How much to do you want to spend? How many gadgets are you willing to tote around? Does anyone really need to be "that" connected?

If I'm leaving you confused, you're not alone. At least, there appear to be some interesting possibilities. All we need is a little convergence.

Next Month: PalmIII

Yes, that's right. Next month look for a hands-on review of the new PalmIII, the much anticipated next generation PalmPilot. It arrived a few days ago and I'm already giving it a good shakedown. So until next

Resources:

JP Systems
www.jpsystems.com

Motorola PageWriter 2000
www.mot.com/MIMS/MSPG/Products/Two-way/pagewriter/

SkyTel
1-800-SKYTEL7

THIS IS THE AD OUR COMPETITION WISHES YOU NEVER SAW!

Visit our Web site at:
www.californiapcdoctor.com

Xtreme PIIBX

Intel 440 BX AGP ATX
Intel PII 400MHz w/MMX
Diamond 128 Bit SGRAM
8MB Fire GL Pro 1000 AGP
64 MB RAM 10ns SDRAM
Sound Blaster 64 Wave
36 X Multiread CD-ROM
6.4GB Ultra DMA WD HD
56.6 Fax-Modem w/Voice
500 Watt 3D Subwoofer
3 pcs Stereo Sound System
Microsoft Intelimouse
1.44 Floppy & 104 Keyboard
Medium ATX Tower Case
Windows 95 OSR2 Installed
P-II 400 . . . . . $1912

DEMON 3D-FX

Intel 440 BX AGP ATX
Intel PII 400MHz w/MMX
Diamond Monster 3D-FX
8MB VODOO II AGP
64 MB RAM 10ns SDRAM
Sound Blaster 64 Wave
32X Toshiba CD-ROM
4.3GB Ultra DMA WD HD
56.6 Fax-Modem w/Voice
360 Watt 3D Surround Sound
Stereo Sound System
Logitech 3 Button Mouseman
1.44 Floppy & 104 Keyboard
Medium ATX Tower Case
Windows 95 OSR2 Installed
P-II 400 . . . . . $1915

TURBO GRAFIX

Intel 440 LX AGP ATX
Intel PII 266MHz w/MMX
Diamond 128 Bit SGRAM
8MB Fire GL Pro 1000 AGP
64 MB RAM 10ns SDRAM
Yamaha 16 Bit 3D Soft Wave
Toshiba DVD-II CD-ROM
6.4GB Ultra DMA WD HD
56.6 Fax-Modem w/Voice
320 Watt Speaker System
17" .25 Hi Res Monitor
Logitech First Mouse
1.44 Floppy & 104 Keyboard
Medium ATX Tower Case
Windows 95 OSR2 Installed
P-II 266 . . . . . $1669
P-II 300/333 . . . $1799/1939

VORTEX PIILX

Intel 440 LX AGP ATX
Intel PII 266MHz w/MMX
AGP 4MB SGRAM 3D Video
32 MB RAM 10ns SDRAM
3D 16 Bit Sound Card
24X MultiRead CD-ROM
4.3GB Ultra DMA WD HD
56.6 Fax-Modem w/Voice
360 Watt Stereo Speaker System
Logitech First Mouse
1.44 Floppy & 104 Keyboard
Super Mini-Tower Case
Windows 95 OSR2 Installed
P-II 266 . . . . . $935
P-II 300/333 $1059/1189

INTRUDER P5TX

Intel 430 TX PCI AT
Intel Pentium® 200/233 w/MMX
PCI 4MB 3D Video Card
32 MB RAM 10ns SDRAM
3D 16 Bit Sound Card
24X MultiRead CD-ROM
3.5GB Ultra DMA HD
56.6 Fax-Modem w/Voice
360 Watt Stereo Speaker System
Logitech First Mouse
1.44 Floppy & 104 Win95 Keyboard
Mini-Tower AT Case
Windows 95 OSR2 Installed
Intel 200/233 $729/749
AMD 233/266. $709/729

FAMILY MULTIMEDIA

Intel 430 TX PCI AT
Intel Pentium® 200/233 w/MMX
PCI 2MB 3D Video Card
32 MB RAM 10ns SDRAM
3D 16 Bit Sound Card
24X MultiRead CD-ROM
3.5GB Ultra DMA HD
33.6 Fax-Modem w/Voice
120 Watt Stereo Speaker System
Logitech First Mouse
1.44 Floppy & 104 Keyboard
15" .28 1280x1024 Monitor
Epson Color InkJet Printer
Mini-Tower AT Case
Windows 95 OSR2 Installed
Intel 200/233 $999/1039
AMD 233/266. $979/999

OFFICE WIZARD

Intel 430 TX PCI AT
Intel Pentium® 200/233 w/MMX
PCI 1MB 3D Video Card
32 MB RAM 10ns SDRAM
3D 16 Bit Sound Card
24X MultiRead CD-ROM
3.5GB Ultra DMA HD
33.6 Fax-Modem w/Voice
120 Watt Stereo Speaker System
Logitech First Mouse
1.44 Floppy & 104 Keyboard
10 BT NE2000 Ethernet Card
Mini-Tower AT Case
Lotus Smart Suite 97 Installed
Windows 95 OSR2 Installed
Intel 200/233. $684/699
AMD 233/266. $665/685

NET SURFER

P530 VX-PRO II PCI AT
AMD/Cyrix CPU w/MMX
PCI 1MB 3D Video Card
32 MB RAM 60ns EDO
3D 16 Bit Sound Card
24X MultiRead CD-ROM
2.1GB Ultra DMA WD HD
56.6 Fax-Modem w/Voice
120 Watt Stereo Speaker System
3-Button Mouse and Pad
1.44 Floppy & 104 Win95 Keyboard
Mini-Tower AT Case
Windows 95 OSR2 Installed

Cyrix 166 . . . . . $592
AMD 200/233 . . . . $635

NETWORKING SOLUTIONS

WORKSTATION

Intel 430 TX PCI AT
Intel Pentium® 200/233 w/MMX
PCI 1MB 3D Video Card
32 MB RAM 10ns SDRAM
3D 16 Bit Sound Card
24X MultiRead CD-ROM
2.1GB Ultra DMA HD
33.6 Fax-Modem w/Voice
120 Watt Stereo Speaker System
Logitech First Mouse
1.44 Floppy & 104 Keyboard
10 BT NE 2000 Ethernet Card
15" .28 1280x1024 Monitor
Mini-Tower AT Case
Windows 95 OSR2 Installed
Intel 200/233 . . . . . $799/825

SMALL BUSINESS SERVER

SMALL BUSINESS SERVER
INTEL 440 TX PCI AXT
INTEL PII 266/300/333 W/MMX
AGP 4MB SGRAM 3D VIDEO CARD
128 MB RAM 10NS SDRAM
24X TOSHIBA CD-ROM
6.4GB ULTRA DMA WD HD
3.2GB COLORADO BACK-UP
3COM 100 BT FAST ETHERNET
MICROSOFT PS2 MOUSE
1.44 FLOPPY & 104 WIN95 KEYBOARD
14" .28 1280X1024 MONITOR
MEDIUM ATX TOWER CASE
PII 266/300/333 $1345/1465/1599

POWER SERVER

Intel 440LX Dual II ATX
Intel Pentium® II 300/333 (1 CPU)
AGP 4MB 3D Video Card
256 MB RAM 10ns SDRAM
32X Toshiba CD-ROM
9GB Ultra Wide SCSI HD
8GB SCSI Colorado Back-up
3COM 100 BT Fast Etherlink
Adaptec AIC 7880 UW SCSI
1.44 Floppy & 104 Keyboard
14" .28 1024x768 Monitor
Full Tower ATX Tower Case 300 Watt
Microsoft PS2 Mouse
Intel P II 300/333 . . . $2726/2859

PEER TO PIER NETWORK SOLUTION

INCLUDES
1X SMALL BUSINESS SERVER
4 X WORKSTATIONS
1 X 9 PORT 10BASE T HUB
WIN 95 CONFIGURED FOR PIER T
. . . . . $4,675

INTERNET ACCESS NETWORK SOLUTION

INCLUDES
1 X POWER SERVER
9 X WORKSTATIONS
1 X 16 PORT 10 BASE - T HUB
1 X WIN NT SERVER W/10 US
. . . . . $10,300

PC DOCTOR

(510) 264-9395 • FAX (510) 264-9396

22962 Clawiter #1, Hayward, CA 94545 • Hours: M-F 10-6 Sat 10-5

Terms: Advertised prices reflect 2% cash discount. All parts and systems are covered by a 1-year parts and labor warranty. Prices subject to change without notice and subject to stock availability. Not responsible for typographical errors. 30-day returns with 15% re-stocking fee.

Tapping Telecommuting's Productivity Dividend

And Weeding Out Or Working In Candidates

By Robert Moskowitz

One of the most complex and subtle concerns associated with successful telecommuting is productivity—not simple productivity issues like, "How long does it take to do a given task or accomplish a given result?", but less obvious aspects of productivity like, "What to do with your telecommuting productivity dividend?"

Telecommuting continues to grow in acceptance and its popularity continues to expand: Even the cautious US Bureau of Labor Statistics admits to the existence of nearly 11 million telecommuters today. So it's perfectly natural for those familiar and comfortable with telecommuting to move on from the very simple and obvious problems of how to encourage people toward telecommuting to more complex and subtle concerns that may follow.

One of the most complex and subtle concerns associated with successful telecommuting is productivity—not simple productivity issues like, "How long does it take to do a given task or accomplish a given result?", but less obvious aspects of productivity like, "What to do with your telecommuting productivity dividend?"

This question breaks down further into such concerns as: "Exactly what are you trying to accomplish?"; "How can you select the best goal to pursue?"; and "How do you know your time and efforts are taking you in the proper direction to accomplish that goal?"

I have been contemplating these and related questions since I first wrote *How To Organize Your Work and Your Time* (1981, revised 1993, Doubleday), and I'm not surprised to find they're as puzzling to most people today as they were back then.

This can often be seen as another manifestation of the old "forest and trees" analogy.

That is, it's important to be focused on your daily activities, the nuts and bolts of what you do and how you do it. If you get too "global" or "strategic" in your perspective, you begin to forget the important details, make silly or expensive mistakes, and hit all the bumps in the road head on.

But many times it's also important to be focused on strategic direction. These are the larger considerations, longer-term objectives, and macro possibilities that provide a framework for your day-to-day actions. If you get too detail-oriented, you begin to forget major purposes, overlook or ignore emerging opportunities, and take the wrong forks in the road—even when you appear to be making good time.

Most people acknowledge that if you're too focused on either one, you automatically neglect the other, and that you can achieve maximum productivity only when you view both the forest and the trees in balance.

Similarly, few people dispute the notion that telecommuting increases a person's overall productivity. The evidence is overwhelming. In rigorously controlled experiments as well as ad hoc surveys of their annual output, telecommuters routinely register improvements of 10% or more. Some attain far larger levels of productivity improvement. But it's not enough merely to recognize that telecommuting usually yields a productivity dividend, because it begs the real question: "What should the successful telecommuter do with all that extra time and energy?"

More Of The Same, Or Something Better?

The easy answer, of course, is to do more of the same. If you're managing contracts, as a telecommuter you can manage at least 10% more contracts than before. If you're auditing books, you can make time to audit at least 10% more books. If you're developing employment policies, you can develop at least 10% more employment policies while working away from the organization's centralized office.

But keeping your head down and plowing ahead doing more of the same is not always the most useful or successful course of action. There's a good chance you can make more overall progress by looking farther ahead and choosing a new direction, or by taking the time to learn new technology so when you once again put your head down, you can work faster or get better results.

A potentially better approach would be to do the same amount of work in at least 10% less time, and then make use of the extra time and energy—your telecommuting dividend—to accomplish something more useful or more

continued on page 54

440BX AGP CHIPSET

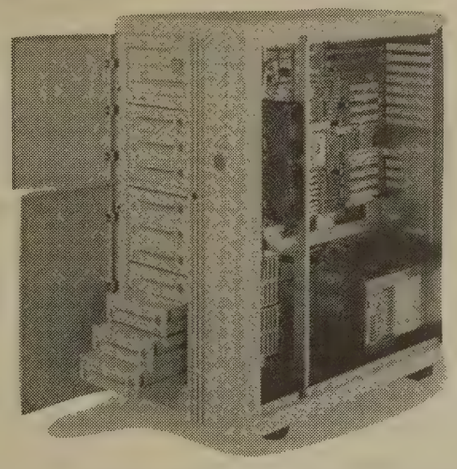
BEST PERFORMANCE FOR YOUR SERVERS & WORKSTATIONS

SUPPORTED BY SuperMicro

NT WORKSTATION WINDOWS NT SERVER

P-II 333MHz Workstation Dual CPU/SCSI UW
Intel 440LX AGP Chipset w/512K Cache
64MB DIMM/10ns SDRAM Memory
5.2GB Ultra DMA IDE Hard Disk Drive
Super AGP 128-Bit 3D Video Card/4MB
24X CD-ROM EIDE & 1.44MB Floppy
Sound Blaster AWE 64 Sound Card
Hi-Powered Stereo Speaker Systems
56K X2 US Robotics PnP Fax Modem
104-Key Keyboard, Mouse, and Pad
Mid Tower Case with Power Supply
Microsoft Windows 95 or NT 4.0 WS
Pentium® II 333MHz x 1 . . . . . $1690
Pentium® II 300MHz x 1 . . . . . $1570
Quality Components

Pentium II 233MHz **$1390**



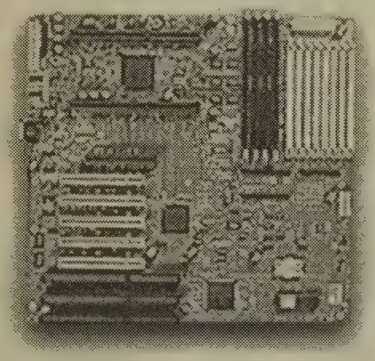
DUAL PROCESSOR • THERMAL CONTROL
FAULT-TOLERANT REDUNDANCY

P-II 450 MHz (Deschutes) Super NT Server Dual CPU/SCSI UW
Intel 440BX AGP Chipset w/512K Cache
128MB Registered SDRAM Memory
5.2GB Ultra DMA IDE Hard Disk Drive
Super AGP 128-Bit 3D Video Card/4MB
24X CD-ROM EIDE & 1.44MB Floppy
Sound Blaster AWE 64 Sound Card
Hi-Powered Stereo Speaker Systems
56K X2 US Robotics PnP Fax Modem
104-Key Keyboard, Mouse, and Pad
Mid Tower Case with Power Supply
Microsoft Windows 95 or NT 4.0 WS
Deschutes 400MHz x 1 . . . . . $2840
Deschutes 350MHz x 1 . . . . . $2610

Deschutes 400 MHz x 2 **$3660**

P-II 333MHZ CAD STATION
Intel 440LX AGP Chipset w/512K Cache
128MB DIMM/10ns SDRAM Memory
9.0GB Ultra Wide SCSI Hard Disk Drive
Super AGP 120-Bit 3D Video Card /8MB
24X CD-ROM EIDE & 1.44MB Floppy
Sound Blaster AWE 64 Sound Card
Hi-Powered Stereo Speaker Systems
56K X2 US Robotics PnP Fax Modem
104-Key Keyboard, Mouse, and Pad
13 Bay Full Tower Case with 300W
Microsoft Windows 95 or NT 4.0 WS
Pentium® II 300/333MHz x 1 . . . . . $2700/2820
Dual Pentium® II 300MHz x 2 . . . . . $3090

CUSTOM CONFIGURATION



SUPERMICRO®

AMD 233 SUPERSTATION
AMD K6 MMX-239 • Multimedia Internet
ACER Mid-Tower w/UL Power Supply
Motherboard w/512K Cache
AMD K6 MMX-233 CPU w/Fan
32MB RAM, SVGA/12MB/1PCI
1.44MB Floppy, 3.2GB Hard Drive
16-Bit Sound Card, 20X CD-ROM
56K Fax Modem, 104-Key Keyboard
Mouse and Mouse Pad
Speakers
Whole System $498
Barebone $249
(w/o HDD CD and Fax/Modem)

FREE TECHNICAL SUPPORT

BRAND NAME COMPONENTS

SUPERMICRO MOTHERBOARDS

P6SBA PIIBX 4PCI/3ISA/1AGP/ATX	$137
P6SBS PIIBX 4PCI/SCSI (7895)/ATX	$277
P6DBE PIIBX Dual/4PCI/ATX	$273
P6DBS PIIBX Dual/4PCI/SCSI (7895)/ATX	$387
P6DLH PIILX Dual/4PCI/3ISA/1G/i960/AT	$625
P6DLS PIILX Dual/4PCI/3ISA/1AGP/ATX	$289
P6DLE PIILX Dual/4PCI/3ISA/SCSI/ATX	$189
P6DLF PIILX Dual/5PCI/3PCI/4DIMMS/AT	$259
P6SLA PIILX Dual/4PCI/3PCI/3DIMMS/ATX	$114
P5MMA-98 P5/MMX/ATX	$101
P5MMS-98 P5/MMX/AT	$98
P5MMS-2 P5/MMX/AT	$94

ASUS & INTEL MOTHERBOARDS

ASUS P2L97	$139
ASUS P2L97-S	$221
ASUS P2L97-DS	$333
ASUS P2B/P2B-S	$176/295
ASUS P2B-LS	$358
ASUS P2B-D	$368
Intel NightShade (BX)	$599
Intel Redwood (LX)	$515
Intel Dakota (LX)	$475
Intel Maui (EX)	$199
Intel Seattle (BX)	$198
Intel Atlanta (LX)	$169

MONITORS

14"/15" Komodo/Digiview	$114/135
17" Komodo/Digiview	$259
17" Digiview .25	$445

CASE W/POWER SUPPLY

801A Server Tower 300W x2/ATX	$575
801S Server Tower 300W x2/AT	$479
750A Full Tower 300W/ATX	$161
750S Full Tower 300W/AT	$166
701A Mid-Tower 235W/ATX	$89
730A Mid-Tower 235W/ATX	$79
ACER SuperMini Tower 200W/AT	$25

Best Service, Best Quality, and Best Value Since 1988

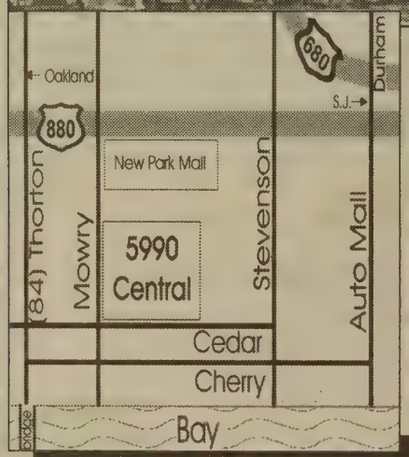
Golden Valley Systems

Golden Valley Systems Inc., 1750 Houret Court, Milpitas, CA 95035
Tel: 408-934-5898 Fax: 408-934-5896

CENTRAL
COMPUTER SYSTEMS, INC.

WIDE SELECTION AT LOW PRICES

Santa Clara	SF	Newark
(408) 248-5888	(415) 495-5888	(510) 793-5555

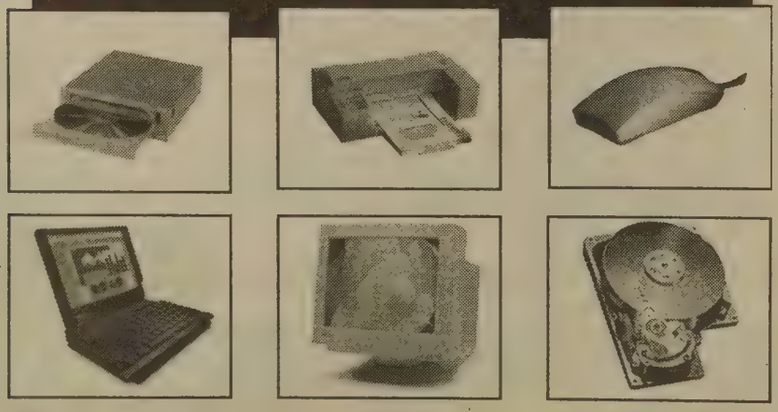


Our 3rd Location!

NEWARK

5990 Mowry Ave.
Newark, CA 94560
TEL: (510) 793-5555
FAX: (510) 795-7888

Check Out the Summer Specials In Our 10-Page Ad Pages 56–65



MicroTimes™

Quotation Hotline

The Free, Convenient And Easy way To Receive Pricing Quotations On All Your Computer Needs!

To accurately process your quotation request, please print like the example below, without touching the box sides.

Please do NOT use a cover sheet. Only legible and completed forms can be processed. You may make copies of this form for multiple requests as needed.
Fax forms to: (800) 496-8008
Please shade circles like this > ●
and NOT with check or crossed marks > ⊘ ⊗

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

0 1 2 3 4 5 6 7 8 9

To ensure accuracy, please read the following information and instructions:

1. All requests for quotation must use the form attached so that the Optical Reading software (OCR) can read it accurately. Do not send requests for quotation on your own letterhead because the software will not read any other text except for the text areas provided in the form.

2. Please fill in all the information legibly. By filling in the boxes neatly and legibly our OCR software can read your requests for quotation accurately. This will also ensure that your request is easier for advertisers to respond to your needs.

3. Do not cut inside the dotted line. Do not use a cover sheet.

4. If you are asking for multiple systems and/or computer products in the same category but with different specifications, please use additional forms. This will ensure that your requests for quotation will be responded to accurately and without any confusion from *MicroTimes* advertisers.

5. Be familiar with the particular computer products you are interested in. Be specific about the various products, system processors, speeds, hard drive sizes, features, as well as the particular configuration that you are interested in. This will ensure that you get an accurate response.

COMPUTER SHOPPING MADE EASY

The MicroTimes Quotation Hotline:

Whether you work for a large corporation or are buying for your personal use, the MicroTimes Quotation Hotline can help you gather pricing ***Information Quickly, Easily and for Free*** from a wide variety of computer resellers through the support of MicroTimes magazine.

Just fill out the form on the opposite page so you can receive information directly from our advertisers on the exact computer products you are interested in. Our advertisers will respond to your requests directly by fax, phone, mail, or e-mail...whichever way you choose.

When You're Finished, Please Fax The Completed Form To:

1-800-496-8008

MicroTimes Quotation Hotline

MicroTimes *Quotation Hotline* Fax forms to: 1-800-496-8008

1237

DIRECTIONS: Please Do Not Use A Cover Sheet. Only legible and accurate forms can be processed. You may make copies of this form for multiple requests. Copy at 100% of actual size, do not reduce in size. Blacken any circles that apply and print neatly within the boxes.

First Name | Last Name

Number of Employees: ○ 1 to 10 ○ 10 to 50 ○ 50 to 100 ○ Over 100

Company Name | Title

What Is Your Purchase Time Frame? ○ 1 Week ○ 2 Weeks ○ 3 Weeks ○ 4 Weeks

Address: Enter your complete mailing address if you want to receive the Advertiser's quotations via postal mail.

Please Rank Your Choice (H=High L=Low)
(H)(L) Price (H)(L) Service (H)(L) Reseller (H)(L) Warranty (H)(L) Onsite Support (H)(L) Compatibles (H)(L) Brand Name

City | State | Zip Code

Area Code Phone Number: Enter only if you want to receive quotes via phone. - -

Area Code Fax Number: Enter only if you want to receive quotes via fax - -

To Be Used Where ? ○ Business ○ Home ○ Network

E-Mail Address: Enter only if you want to receive the Advertiser's quotaions via email.

E-mail address (continued)

I Would Like To Receive My Quotations By: ○ Fax ○ Phone ○ E Mail ○ Mail

Enter # Of Requested Forms ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

"Advertisers' Quotation of the Day!" Your Shopping Made Easy. Our advertisers have packaged all your needs for one stop easy shopping.
Blacken circles that apply like this---> ●

STEP ONE: PICK A SYSTEM.
○ PC NAME BRAND ○ MACINTOSH
○ PC COMPATIBLE ○ Network WORKSTATION
○ PC NOTEBOOK ○ Network FILESERVER
○ MACINTOSH NOTEBOOK

PICK YOUR PREFERENCES
○ Name Brand
○ Compatibles
○ No Preference

Step 1: Enter PC System Brand Name & Model #, If Preference

Step 1: Enter NoteBook Brand Name & Model #, If Preference

Quantity / Choices ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ 10 or More ○

My budget is: ○ Under $1000 ○ $1000 to $1999 ○ $2000 to $2999 ○ $3000 to $3999 ○ $4000 to $4999 ○ Over $5000

Call Me For A More Detailed Quote. ○ Quote Me For Selected Upgrade/Peripherals Choices Only. ○

STEP TWO: SYSTEM CONFIGURATION: ○ INTEL ○ PENTIUM ○ PENTIUM MMX ○ PENTIUM PRO ○ PENTIUM II ○ DUAL CPU'S ○ MACINTOSH ○ MACPOWER BOOK ○ MacCLONE ○ AMD ○ CYRIX

CPU MHz & SPEED: ○ 5X86 ○ 6X86 ○ PowerPC ○ K-6 ○ 400 ○ 333 ○ 300 ○ 266 ○ 233 ○ 200 ○ 166

BUS TYPE: ○ PCI ○ ISA

CACHE ○ 64K ○ 128K ○ 256K ○ 512K

RAM: ○ EDO ○ SRAM ○ 4MB ○ 8MB ○ 16MB ○ 32MB ○ 64MB ○ 128MB

MONITOR: ○ SVGA ○ VGA ○ MONO ○ 26 DPI ○ 15" ○ 17" ○ Non Interlace ○ 28 DPI ○ 20" ○ 21" ○ Multisync

HARD DISK DRIVE: ○ IDE ○ SCSI ○ ZIP DR ○ 1GB+ ○ 2GB+ ○ 3GB+ ○ 6GB+ ○ JAZZ ○ 2.5GB+ ○ 4GB+ ○ 8GB+

FLOPPY DRIVE: ○ 1.44MB

FAX MODEM: ○ Internal ○ External ○ 33600bps ○ 56000bps

CASE TYPE: ○ Mid Tower ○ Desktop ○ Full Tower

VIDEO CARD RAM ○ 1MB ○ 2MB ○ 3MB ○ 4MB ○ 8MB

POINTING INPUT DEVICES: ○ Any Mouse ○ MS Mouse ○ Keyboard ○ Serial ○ Bus ○ PS2 ○ Trackball ○ Joystick ○ Ball Point ○ Pen

OPERATING SYSTEM NEEDED: ○ Windows 95 ○ OS2/Warp ○ Mac ○ Win NT ○ UNIX

STEP THREE: MULTIMEDIA UPGRADE ○ Please Add To Step 1 & 2 Quotation ○ Please Quote Me Separately

CD ROM DRIVE: ○ Internal ○ External ○ IDE ○ SCSI

CD ROM TITLES INCLUDED: ○ 1-5 ○ 5-10 ○ 11+

○ 32X ○ 24X ○ 20X ○ 16X ○ 12X

○ BRAND NAME ○ No Brand Name Preference

CD ROM Brand Name and Model Number

SOUND CARD ○ 64Bit ○ 32Bit ○ 16Bit

SPEAKERS ○ Less Than 25W ○ 25 to 50W ○ 50 to 75W ○ More Than 75W

STEP FOUR: NOTEBOOK SECTION - Please Note You Must Make Choices In Steps 1 & 2 To Complete Step 4

SCREEN TYPE: ○ 10" ○ 11' ○ 12' ○ Active Color ○ Dual Scan ○ 13'

PCMCIA SLOT: ○ Type II ○ Type III ○ Type IV

○ Audio Capable ○ Docking Station ○ Extra Battery ○ Fax Modem ○ CD\MultiMedia

STEP FIVE: NETWORKING NEEDS: ○ Please Contact Me on My Networking Needs Indicated Below
○ Software ○ Hardware ○ Consultation ○ Design ○ Installation ○ Administration ○ MS Workgroups
○ Users 2 to 10 ○ Users 10 to 50 ○ Users Over 50 ○ Lantastic ○ Apple Talk ○ Novell ○ MS NT

1237

STEP SIX: UPGRADES & PERIPHERALS: ○ Ink Jet Printer ○ Tape Backup ○ Accelerator ○ Digitizer ○ Laser Printer ○ Color Printer ○ Dot Matrix Printer ○ Flat Bed Scanner ○ Hand Scanner

Paperimage (R), Inc. 1994-1998 Copyright All rights reserved. (NoCal Form J 04/28/1998)

Please Cut Out Form On Dotted Line...Do Not Enlarge or Reduce Size of Form

QUOTATION HOTLINE

continued from page 50

important than the work already on your plate. You probably won't want to do this during the first week of telecommuting, but once an organization has a cadre of telecommuters, and people on both sides of the telecommuting relationships are comfortable with the process and with their respective roles, it's usually fruitful to look more globally at what those telecommuters are trying to accomplish.

Tweaking The Mission Statement: One good approach is to review or develop an overall "mission statement" not only for the organization, but for the positions now filled by one or more telecommuters. As you probably know, a mission statement is a description of the most important "added values" that the organization generates by its overall activities. It's normally conceived and developed by leaders who are trying hard to hold onto a broad, long-term perspective.

In many cases, an existing mission statement will offer insights or clues regarding some new responsibilities or directions the telecommuters can pursue. In other situations, the productivity dividend will itself provide time and energy to examine the organization's current activities and come up with a new, or an improved mission statement.

A third approach for realizing benefits from the telecommuting dividend is for individual telecommuters to use their extra time and energy to initiate contact with their ultimate customers—the people inside or outside their organization who make use of whatever products and services the telecommuters provide.

For example, a small communications consultancy that saw itself helping client companies produce better annual reports and investor relations materials used the extra productivity of its telecommuting top managers to review its mission statement. They quickly realized the company ought to be handling a broader range of public relations problems and opportunities for its clients. Within a few years, the company was generating more revenue from its new short-term "crisis management" services than from all its previously existing contracts.

In another case, a publishing company that had focused for years on producing controlled circulation newspapers for the computer industry made use of management time freed up through telecommuting to rethink its mission statement and to reinvent itself as a more global organization. As a result, it was able to branch out into other industries and apply its core competencies and established skills to the needs of customers in other industries. Net result: New controlled circulation newspapers for skiing, skating, golf, boating, hunting, and other industries.

continued on page 66

Mention *MicroTimes!*

Did you read about a new product in *MicroTimes*?

Let our advertisers know you read it here. The more you mention our name, the better our magazine can service your computer needs.

MICROTIMES
www.microtimes.com
(510) 768-1200

STUDENTS TEACHERS

SmartSOFT SOFTWARE
Your exclusive distributor of FULL-VERSION software at academic discounts

Corel WordPerfect Academic
Corel WordPerfect Suite 8.0 incl Corel Photohouse only $44 Compare to $299
WordPerfect Suite 8 Pro $119
Corel Draw 8 $139 Compare to $459
incl Corel Draw 8, CorelPhotoPaint 8 CorelDream 3D 8, and 100+ new features, web tools & special effects

Save Save Save
Adobe Photoshop 5 Call for price and Compare to $649
Adobe Illustrator 7 Call for price and Compare to $399

Director 6 $349 Compare to $899
Director 6.5 Multimedia Studio $699 Compare to $1200
Freehand 8 $149 Compare to $399
DreamWeaver $169 Compare to $299
MetaCreations 3D Suite 2 $329 Compare to $799
BCSoftware Final Draft $169 Compare to $299

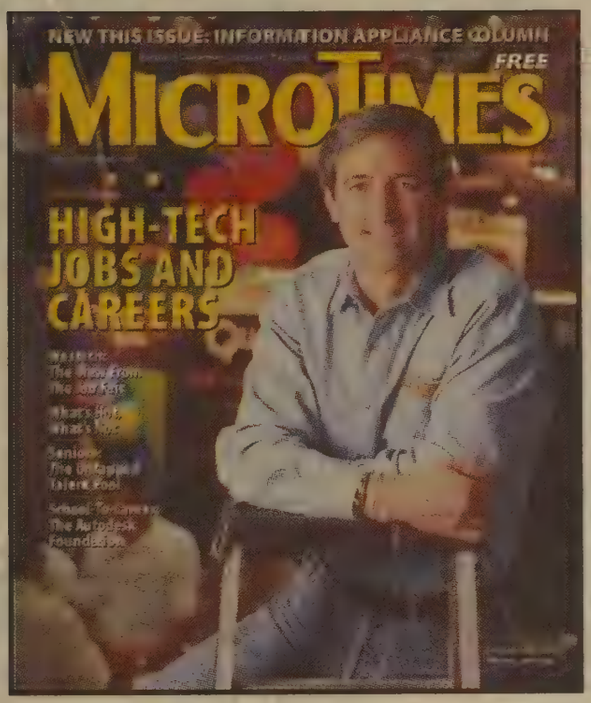
Microsoft Office 97 for Win95 Professional
incl. Word 97, Excel 97, Powerpoint 97 Outlook 97, Access 97 & Bookshelf Basics

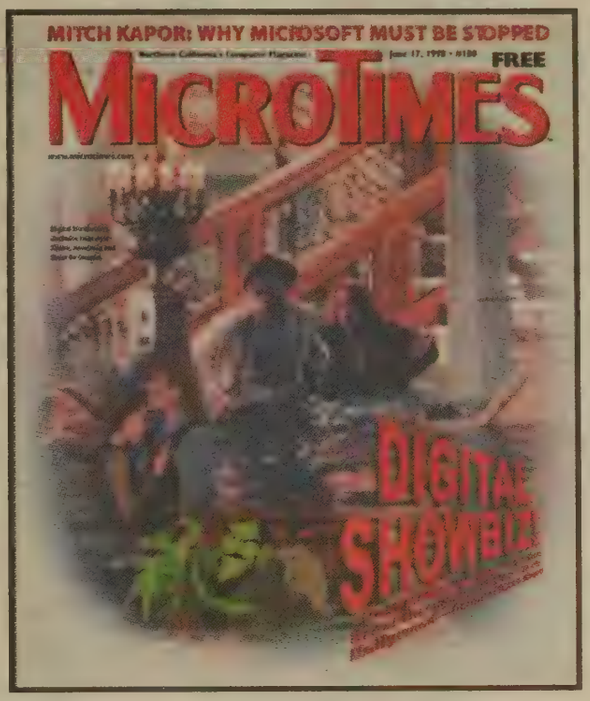
FrontPage98
Create professional web sites & manage web content with greater efficiency, innovative tools, 2000+ image samples templates & more!

Microsoft Specials
Win NT 4.0 Workstation & Mastering Visual C++ or Mastering Visual Basic FREE
When you buy Visual C++ Pro 5.0 or Visual Basic Pro 5

CALL Visual Studio97 Professional
incl. Visual C++ Pro 5.0, Visual Basic Pro 5.0, Visual J++ 1.1, Visual Internet Development Visual FoxPro Pro 5, & MSDN Library CD Ref

How to contact us
by phone: Mon-Sat 6am-6pm (800) 272-3639 24-hour fax 310.443.5496
on-line: www.studentdiscounts.com
Prices/availability may change at any time • Current ID required for Academic prices • Some prices reflect 3% cash discount





Does Your Company Get *MicroTimes*?

Don't be left behind. In the high-tech industry, missing just one issue of ***MicroTimes*** may leave your company technologically stranded. We understand this, which is why ***MicroTimes*** is delivered FREE to business locations throughout the Bay Area.

If your company can utilize 100 or more issues of ***MicroTimes*** a month, complete this form and fax it to us at (510) 768-1288. That's all you have to do. ***MicroTimes*** will then be delivered to your location each month. And you won't miss our informative articles focusing on "Business on the Internet," "Enterprise Computing," "High-Tech Careers," and many other timely subjects.

So don't be left behind. Get ***MicroTimes*** delivered to your company now!

For more information call
MicroTimes (510) 768-1200

YES! My company would like to receive *MicroTimes:*

Company Name:

Contact Name:

Address:

Floor # Suite # Building:

Cross Street:

City, State, Zip:

Phone:

Number of Copies Desired: 100 200 500 Other:

Best Time to Deliver: Early AM Afternoon

Comments:

Fax to: (510) 768-1288

MICROTIMES
www.microtimes.com

CENTRAL
COMPUTER SYSTEMS, INC.

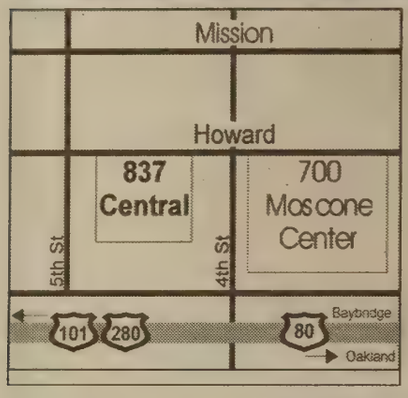
WIDE SELECTION AT LOW PRICES

Since 1986

OPEN 7 DAYS!

Mon-Fri: 9:00am-7:30pm, Sat-Sun: 10:30am-6:00pm

Web Page: http://www.centralcomputer.com



Nearest Bart Station - Powell

Nearest Muni Lines - 9X, 12, 27, 30, 42 & 76

From CalTrain/Amtrak - 5 Blocks North

From Transbay Terminal - 3 Blocks West

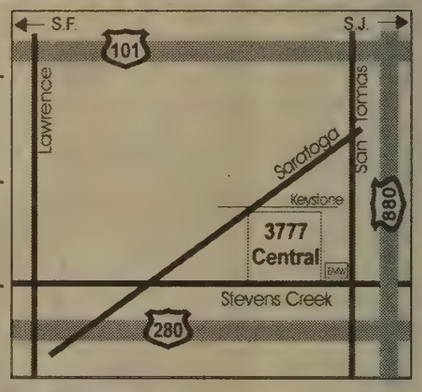
From Freeway 101 - 4th Street Exit

From 101 - San Tomas Exit (4miles)

From 280 - Saratoga-Santa Clara Exit (1mile)

From 880 - Stevens Creek Exit (2miles)

Parking & Entrance at Rear



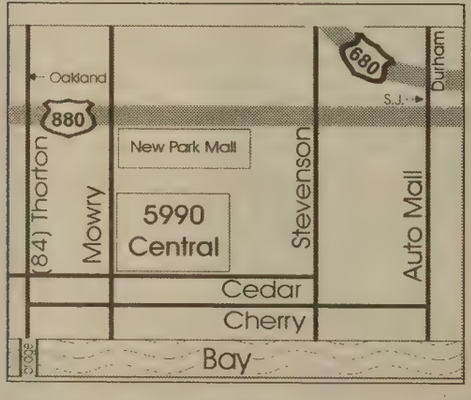
SAN FRANCISCO

837 Howard Street, San Francisco, CA 94103
TEL: (415) 495-5888 • FAX: (415) 896-5888
Email: ccsf@centralcomputer.com

SANTA CLARA

3777 Stevens Creek Blvd., Santa Clara, CA 95051
TEL: (408) 248-5888 • FAX: (408) 241-0390
Email: central@centralcomputer.com

Visit Our 3rd New Location in Fremont-Newark



NEWARK

5990 Mowry Ave. Newark, CA 94560
TEL: (510) 793-5555
FAX: (510) 795-7888
Email: fremont@centralcomputer.com

From 880 - Mowry Exit
From 680 - Auto Mall Pkwy Exit
From 84 - Cedar Blvd. Exit

MONTHLY SPECIALS

WHILE SUPPLIES LAST

3COM (USR) Courier V.Everything 56k Int / Ext	$205/245	3COM 3C575-TX 10/100 Card Bus PC Card	$145
IBM 4.3GB UW-SCSI Hard Drive	$275	WISECOM H008CAT 8 Port Hub	$64
3COM (USR) Sportster 56k Fax Int	$99	DANPEX 2900P2 PCI Combo	$18
EPSON Stylus 800 Color	$299	DANPEX EN1600 16 Port Hub	$99
INITIO INI-9100 SCSI PCI Controller	$59	HP Laser Jet 4000T	$1195
HITACHI CM630U 17" Monitor	$465	HP C1536 2-4GB SCSI Int Tape Backup	$465

DISCOVER VISA MasterCard AMERICAN EXPRESS P.O.

- No surcharge for VISA, MC, DISCOVER & AMEX - Reseller and quantity pricing available
- Government, Educational Institution & Corporate Purchase Orders WELCOME
- Prices subject to change w/o notice and to stock on hand. Not responsible for typographical errors

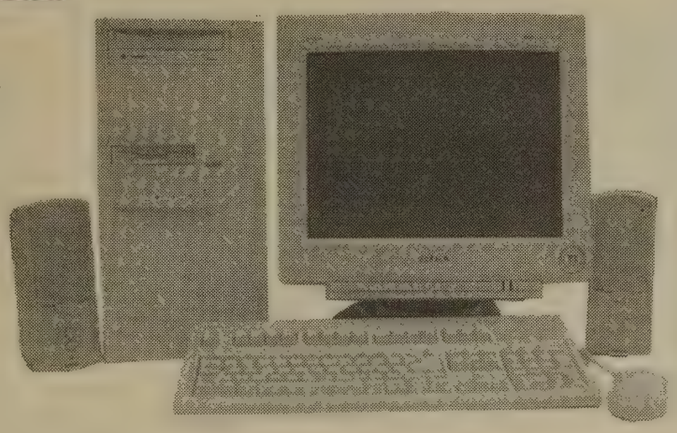
CENTRAL
COMPUTER SYSTEMS, INC.

WIDE SELECTION AT LOW PRICES

SANTA CLARA: 3777 Stevens Creek Blvd. **TEL: (408) 248-5888**
SAN FRANCISCO: 837 Howard Street **TEL: (415) 495-5888**
NEWARK: 5990 Mowry Avenue **TEL: (510) 793-5555**

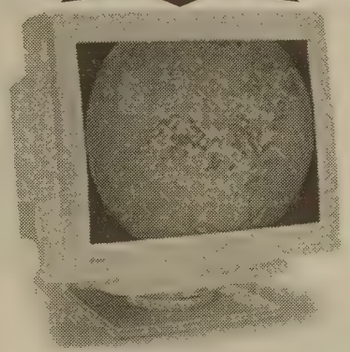
Central Ultra Series

- Intel Pentium® II Processor
- 64MB RAM
- Intel SE440BX Motherboard (with 100MHz & AGP)
- Maxtor 8.4GB UltraDMA HDD
- 32X max IDE CD-ROM & Teac 1.44MB FDD
- Iomega IDE Zip Drive Internal
- ATI Xpert@Work 8MB AGP
- 56K Internal Fax Modem
- Yamaha OPL-3 Sound (on-board)
- Yamaha M7 Multimedia Speakers
- Keytronic PS/2 Keyboard
- Microsoft PS/2 Mouse w/ Pad
- ATX Mid-Tower Case w/ 235W Power Supply
- Microsoft Windows® 95 CD OSR v2.5
- Monitor not included
- 2 Months of Free Internet with Sirius



400MHz Pentium® II w/MMX Technology.....$2069

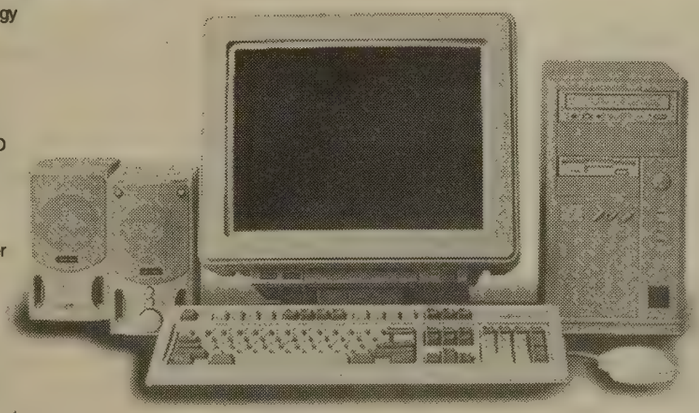
iiyama SPECIALS



MF-8515G 15" 1280x1024 .28 NI.	$249
MF-8617E 17" 1600x1200 .26 NI, 69Hz	$479
MF-9017E 17" 1600x1200 .25 NI, 72Hz	$559
S901GT 19" 1600x1200 .26mm NI	$765
S102GT 21" 1800x1440 .27 NI, 74Hz	$1115
A102GT 21" 1800x1440 .28 NI, 74Hz	$1125
LCD Flat Panel:TXA3601GT 14.1" TFT, 1024x768, 72Hz	$995

Central Thunder Series

- Intel Pentium® II Processor w/ MMX" Technology
- 64MB SDRAM 10ns
- 512K L2 Cache
- Intel Atlanta AL440LX Motherboard
- Quantum 6.4GB UltraDMA HDD
- 32X max CD-ROM Drive & Teac 1.44MB FDD
- ATI Xpert@Work 4MB AGP
- Yamaha OPL-3 3D Sound Card (on-board)
- Microsoft Windows® 95 CD OSR v2.5
- Altec Lansing ACS45 Speakers w/ SubWoofer
- Keytronic PS/2 Keyboard
- Microsoft PS/2 Mouse w/ Pad
- ATX Mid-Tower Case w/ 235W Power Supply
- 56K Internal Fax Modem (K56Flex)
- Iomega Zip Drive Internal w/ One Cartridge
- Monitor not included
- 2 Months of Free Internet Access with Sirius



333MHz Pentium® II.....$1609

266MHz Pentium® II.....$1349

Central Gaming Series

- Intel Pentium® II Processor w/ MMX" Technology
- 64MB SDRAM 10ns
- 512K L2 Cache
- J-Bond PCI600E 440LX AGP Motherboard
- Quantum 6.4GB UltraDMA HDD
- 32X IDE CD-ROM Drive & Teac 1.44MB FDD
- Diamond Viper V330 4MB AGP
- Diamond Monster II 8MB PCI
- Sound Blaster AWE64 Value
- Microsoft Side Winder 3D Pro
- Microsoft Windows® 95 CD OSR v2.5
- Altec Lansing ACS45 Speakers w/ SubWoofer
- 56K Internal Fax Modem
- Keytronic PS/2 Keyboard
- Microsoft PS/2 Mouse
- ATX Mid-Tower Case w/ 235W Power Supply
- 2 Months of Free Internet Access with Sirius

266MHz Pentium® II.....$1559

BUNDLES

- **Microsoft Bundle #1 (Home) . . . . . add $39** (Encarta '97/ Works 4.0/ Money)
- **Microsoft Bundle #2 (Sport) . . . . . add $24** (Flight Simulator 5.1/ Complete Baseball/ Golf 3.0)
- **Microsoft Bundle #3 (Kids) . . . . . add $34** (Creative Writer/Explorapedia/Magic School Bus)

Microsoft Office 97 Small Business Edition w/complete CD and Manuals
+ Microsoft Works/Money. . . . . **add $249**

Academic Office Suite (Student ID required)
- Microsoft Office 97 Standard. **$145**
- Microsoft Office 97 Professional **$189**

Note: add $20 for preload/installation

90 Days Same as Cash

-No Interest for 90 Days
-Low Monthly Payments
-On Approved Credits

**(sale price) . . . . . SPECIALS, limited to stock on hand*
Prices subject to change without notice.

http://www.centralcomputer.com for current prices & catalog

Central Home Series

- Intel Pentium® Processor w/ MMX™ Technology
- 32MB SDRAM, 512k Pipeline Cache
- J-Bond PCI500C-K, 430TX Motherboard
- Western Digital 3.2 Ultra DMA HDD
- 24X max CD-ROM, Teac 1.44MB FDD
- Diamond 3D 2000 Pro 2MB PCI
- ESS 16 IDE w/ Yamaha OPL-3 Sound
- SD693 Multimedia Speakers
- Mitsumi ZW Keyboard
- Microsoft Serial Mouse
- Mid-Tower Case (#3-IWG500)
- Microsoft Windows® 95 CD OSR V2.5
- 33.6 Internal Fax/Modem
- Monitor not included
- 2 Months of Free Internet with Sirius

233MHz Pentium® MMX $825

TOSHIBA EQUIUM 7000D

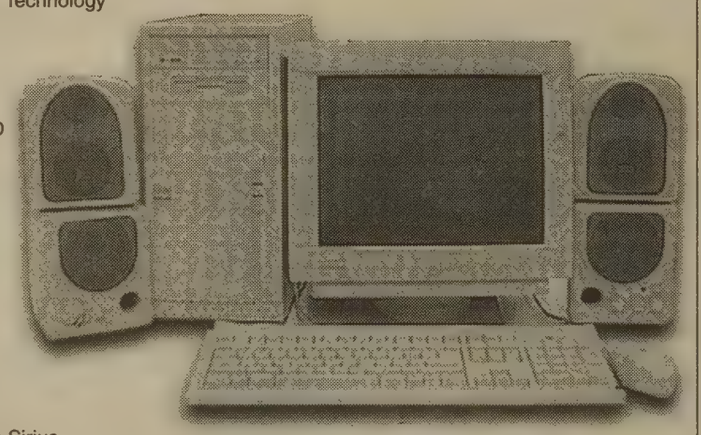
- Intel Pentium® II Processor w/ MMX
- 32MB EDO DRAM, 256k Cache
- 4GB HDD, 1.44MB FDD
- 24X IDE CD Rom
- ATI 3D Rage Pro 2MB SGRAM
- Sound Blaster Pro compatible
- Intel EtherExpress 10/100 Lan Adapter
- PS/2 Keyboard & Mouse
- Microsoft Windows 95 OSR2
- Desktop Case
- 3 Year Manufacturer Warranty

Options:
- *32MB upgrade $130*
- *15" Toshiba Monitor $375*
- *17" Toshiba Monitor $655*
- *USR 56k Modem Int $165*

P/N=PV1044U-000

266MHz Pentium® II $1429

Central SOHO Series III



- Intel Pentium® II Processor w/ MMX™ Technology
- 32MB SDRAM •512k L2 Cache
- J-Bond PCI600E 440LX AGP Motherboard
- ATI Xpert@Work 4MB AGP
- Western Digital 3.2GB UltraDMA HDD
- 32X max CD-ROM Drive & Teac 1.44MB FDD
- 56k Internal Fax/Modem
- Yamaha OPL-3 Sound
- SD737 Multimedia Speakers
- Keytronic PS/2 Keyboard
- Microsoft PS/2 Mouse
- ATX Mid-Tower Case w/ 235W Power Supply
- Microsoft Windows® 95 CD OSR V2.5
- Monitor not included
- 2 Months of Free Internal Access with Sirius

266MHz Pentium® II $1059

233MHz Pentium® II $999

HEWLETT PACKARD BRIO D6513A

- **Intel Pentium® II Processor w/ MMX**
- 32MB RAM, 256k Cache
- **8GB** HDD, **32X** CD-ROM
- **S3 Trio64-V2 2MB**
- PS/2 Keyboard & Mouse
- **Microsoft Windows 95 OSR2**
- **Microsoft Word**
- Mid Tower Case
- **3 Years Manufacturer Warranty**

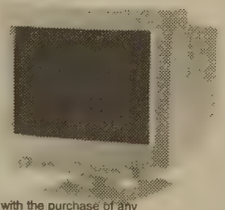
Options:
- *32MB upgrd $179*
- *15" HP Monitor $325*
- *17" HP Monitor $599*
- *USR 56k Modem Int $165*

300MHz Pentium® II. $1649

MONITOR

HITACHI SUPERSCAN

CM500U

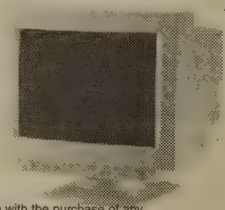


15" (13.7" Viewable Size)
Max Resolution
1280x1024 @ 65Hz
Flat Screen, Non-Interlace, MPRII

$229*

*Advertised price relects special discount given with the purchase of any Central Systems. Previous purchases excluded.

CM630U

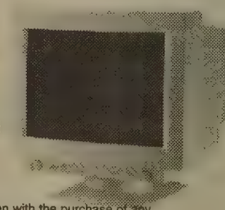


17" (15.9" Viewable Size)
Max Resolution
1600x1200 @ 60Hz
Flat Screen, Non-Interlace, MPRII

$459*

*Advertised price relects special discount given with the purchase of any Central Systems. Previous purchases excluded.

CM751



19" Monitor .26
Max Resolution
1600x1280 @ 75Hz
Flat Screen, Non-Interlace, MPRII

$809*

*Advertised price relects special discount given with the purchase of any Central Systems. Previous purchases excluded.

*(sale price) . . . . . SPECIALS, limited to stock on hand
Prices subject to change without notice.

http://www.centralcomputer.com for current prices & catalog

HARDWARE

1. CD DRIVES & SOUND

CREATIVE LABS
DVD II IDE w. Decoder Card oem 239
Encore DVD II w. Kit 275
Ensoniq 32 Audio PCI 45
Midi Kit + Software 65
Sound Blaster 16 PnP (w/o IDE) 39
Sound Blaster 64 AWE oem / Value Pak 69/85
*Sound Blaster 64 AWE Gold ..... *(145)*
Sound Blaster 64 PCI 95

JAZZ
DVD II w. Decoder Card & Remote Control 285

MICROSOLUTION
Backpack 8X Parallel 205

MITSUMI
FX240S 24X IDE Int 65
FX320S 32X IDE Int 69

NEC
CDR-1610 16X SCSI Int oem 85
CDR-1800 24X IDE Int oem 69
CDR-1810 24X SCSI Int oem 99

PIONEER
DVD II SCSI Drive oem 215

PLEXTOR
*PX-32X SCSI Int (Caddy) ..... *(229)*
PX-32X SCSI Int (Tray) 205

SONY
CDU-611 24X IDE Int 69
CDU-711 32X IDE Int 73
PRD-650 Portable 6X w. PCMCIA Kit 315

TEAC
CD524E 24X IDE Int 69
CD516S 16X SCSI Int 89
CD532E 32X IDE Int 75
CD532S 32X SCSI Int 103

TOSHIBA
XM6102B 24X IDE Int 65
XM6201 32X SCSI Int 105
XM6202B 32X IDE Int 75

TURTLE BEACH
Multi-Sound Fiji 20-bit / w. Digital I/O 275/329
Multi-Sound Pinacle 20-bit / w. Digital I/O ... 375/425
Pinacle Project Studio 475
Tropez Sound 32 Voice 145
Wave Table Sound 32 99

OTHERS
Audio Cable ..... 1.99 ea.
CD Caddy 3.99
CD Jewel Case for 1 / 3-CD 0.45/0.55
Decoder Card 129
ESS 16 IDE 3D Sound Card 25
Gravis Ultrasound Plug & Play 135
Gravis Ultrasound Pro, PnP 175
J-Bond MF-719 Yamaha 3D 32 w. Midi 39
*Television: Telesound EX16 IDE ..... *(68)*

WRITABLE CD DRIVES:
Adaptec Easy CD Creator Deluxe Software 89
Artmedia 6X/2X/2X IDE Int 399
Elektroson Gear CD Creator Software 95
HP C7200i Rewritable 6X/2X Int 415
HP C7200e Rewritable 6X/2X Ext 515
Phillips Omniwriter Rewntable 6X/2X Int, oem / reg 459/499
Plextor PX-R412 Int / Ext 479/559
Ricoh 6X/2X IDE Int / Parallel 369/459
Ricoh 6X/2X SCSI Int / Ext 449/539
Sony Spressa 928E/H 8X/2X IDE Int 339
Sony Spressa 960 6X/2X SCSI Recordable 385
Yamaha CRW4001 6X/4X/2X EIDE Int 499
Yamaha CRW4260 TIPC 6X/4X/2X SCSI Int 569
Yamaha CRW4260 TXPM SCSI Ext 659

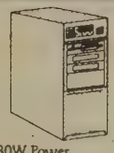
3M CDR 74 min. / 10-pk 3.95/37
Artmedia CDR 74. min / 25-pk ..... *(1.99)/44
HP Rewritable CDRW (C4431) 19 95
HP CDR 74 min. (C4432) / 3-pk 2.99/8.50
- 10-pk / 25-pk 25/59
Kodak CDR 74min. / 10-pk / 25-pk 2.99/25/59
Ricoh CDR 74 min. / 25-pk ..... *(1.99)/44
Ricoh CDRW 74 min. Re-wntable 17 95
Sony CDR 74 min. / 10-pk 3.95/37
TDK CDR 74 min. / 10-pk 2 99/25

SPEAKERS:
Altec ACS45 w. Sub-Woofer 79
Altec ACS51 / ACS52 / ACS53 ..... 65/85/125
Altec ACS150 / ACS500 ..... 99/295
Labtec Stereo LCS-150 / LCS-600 ..... 18.95/24 95
Labtec 1012 / 1022 (10W) 35/49
Labtec 1224 Space Server 3D Stereo (10W) 69
*MLF-CP55 Mini Speakers (4W) ..... *(4.99)*
*Yamaha YST-M7 (5W) / YST-M15 ..... *(39/59)*
Yamaha Systems (45W) 169

SPECIALS
GLi768: 3D, 380W, 20-20KHz 26
GLi969: 3D, 380W, 20-20KHz 27
*HM2: Headset w. volume control ..... *(7.95)*
*KC3: Headphone + Microphone ..... *(6.95)*
*MC1: Pocket Size Microphone ..... *(4.95)*
*MC2: Central Computer Microphone ..... *(2.95)*
MC2: Nicole Condencer Microphone 3.45
SD202: Full Range Speakers, 180W 19.95
*SD322: Sub-Woofer ..... *(25)*
*SD688: Deluxe 3D Surround 360W ..... *(39)*
SD693: Amplified, 80W, 50-15KHz 9.95
SD737: Amplified, 120W, 20-20KHz 16.95
*SD880: Amplified Stereo Speakers 200W ..... *(19.95)*
SD922S: 3D Systems, 480W, w. Sub-Woofer 95
SD969: Amplified, 380W, 20-20KHz 26.50
*SD980: 3-way Speakers 180W ..... *(35)*

Resellers CALL for wholesale prices!

2. CASE



#1: Baby AT w. 230W Power 39
#2: Baby Tower w. 230W Power 29
#3: IWG500 Mid Tower w. 230W Power 59
#4: Mid Tower w. 250W Power 39
#5: CF-8502A Mid Tower, 250W, Open Side 67
#6: GT212 Mid Tower, 250W, Open Side, 2 Fans .. 105
#8: Full Tower, 250W, 2 Fans 85
#9: CF-8501S Full Tower, 250W, Open Side 89
#10: KS-A5561 Full Tower, 250W, Slide Open, 2 Fans ... 115
#11: Full Tower, 300W, w. Wheels 149
#12: GT312 Full Tower, 300W, Open Side, 2 Fans . 139
#15: Mid Tower w. IDE Mobile Rack 55
#17: 668A Full Tower w. 250W Power 69
#18: 668B Mid Tower w. 250W Power 55
#19: 668C Mini Tower w. 230W Power 39
#A1: ATX CF-8502A Mid Tower, 235W, Open Side 69
#A2: ATX Mini-mid Tower, 235W Power 69
#A5: ATX CF-8501S Full Tower, 250W, Open Side . 95
#A6: ATX GT-232XC Mid Tower, 250W 115
#A7: ATX GT-312 Full Tower, 250W 135
#A8: ATX PC-268A Desktop, 235W 69
#A9: ATX PC-968A Mid Tower, 235W 69
#A10: ATX PC-768A Full Tower, 235W 95
#A12: ATX 668B Mid Tower, 230W 72
#A13: ATX 668A Full Tower, 250W 92
#A14: ATX IWQ500 Full Tower, 235W 95
#A15: ATX Mid Tower, 230W, thumbscrew 69
#A16: ATX Mid Tower, 230W 59

HDD EXTERNAL CASING:
CF730: 1 half ht IDE Parallel, 50W, 3.5" 65
CF731: 1 half ht SCSI, 50W 45
CF732: 1 half ht SCSI-2, 50W 64
CF733: 1 half ht SCSI-3, 50W 69
CF751: 1 half ht SCSI, 50W 47
CF752: 1 half ht SCSI-2, 5.25" 66
CF753: 1 half ht SCSI-3, 5.25" 69
CF7021: 2 half ht SCSI, 80W 72
CF7022: 2 half ht SCSI-2, 80W 95
CF7023: 2 half ht SCSI-3, 80W 99
CF7041: 4 half ht SCSI, 200W 92
CF7042: 4 half ht SCSI-2, 200W 123
CF7043: 4 half ht SCSI-3, 200W 129
CF7081: 8 half ht SCSI, 250W 185
CF7083: 8 half ht SCSI-3, 250W 235
CFCDO: CD-R IDE Parallel, 50W 59
CFCDR: CD-Rom Box SCSI, 50W, 5.25" 39

ANTEC
IPC2480: 19" Industrial Rackmount Chassis for ATX, 250W 329
IPC2448: 19" Industrial Rackmount Chassis for AT, 300W 349
KS-011+RPP3002: 19 Bay Server (9 front, 10 int. bay) 300W, Hot Swap + Redundant P/S, 2 Fans 529
KS-011+RPT600: 19 Bay File Server (9 front, 10 int. bay) 300W, Redundant Vertical AT P/S, 2 Fans 439

SUPERMICRO
701 ATX, Mid Tower, 230W Power Supply 95
730A: ATX, Mid Tower, 230W 89
750A: ATX, Full Tower, 300W Power 165
750S: Full Tower w. 300W / 400W 165/209

OTHERS
6' Rackmount Cabinet, Black 1650
19" Industrial Rackmount Chassis for AT, 250W ... 285
19" Industrial Rackmount Chassis for ATX, 250W 339
Cooling Fan for Case 8cm / 9cm 6.50/6.95
Cooling Fan for Removable Case 4cm 3.99

3. CONTROLLERS

adaptec
2940U SCSI PCI w. Kit oem / reg 165/219
2940UW Ultra-Wide-SCSI PCI Kit oem / reg .. 195/259
2940U2W U2-Wide w. Kit 399
AAA-131 Raid Single Channel / CA 435/495
AAA-133 Raid 3 Channel 635
AHA3940 PCI Multi-Channel SCSI 399
AHA3940UW Ultra-Wide-SCSI w. Kit 479
APA1460B Slim PCMICA SCSI 159
ASW-EZ SCSI 3.1 for Dos & Win 59
ASW-EZ SCSI 4.0 for Win'95 69

ASUS
AS300UW SCSI PCI & 16-bit audio adapter 205
SC200 SCSI-2 PCI w. NCR chips 79

COREL
Corel SCSI Software v2.5 85

DIAMOND
*Fire Port 40 Ultra SCSI PCI ..... *(99)*

HIGHPOINT
CDXpress CD-Rom Accelerator CD 35
Ultra DMA-33 PCI 65 99
XStore MMX Accelerator CD 9.99

INTIO
*INI-9100 SCSI PCI PnP ..... *(59)*
*INI-9100U SCSI PCI Kit, 20Mb/s ..... *(129)*
*INI-9100UW Ultra-Wide SCSI PCI Kit ..... *(169)*
*INI-9200U Dual SCSI PCI ..... *(215)*
*INI-9200UW Dual Ultra-Wide SCSI PCI ..... *(259)*
*INI-9520U Dual SCSI + Ether Combo ..... *(285)*
*INI-9520UW Dual + Ether Combo ..... *(335)*
*INI-9400U Quad SCSI Ultra ..... *(395)*
*INI-9400UW Quad Ultra Wide SCSI ..... *(459)*

KOUWELL
KW557A IDE/ 1.44/ 2S (FIFD)/ ECP/ 1G 22

LDP (LOMAS DATA)
*Fast SCSI 2 PCI 10Mb/s ..... *(99)*
*Fast PCI 20, Ultra-Wide-SCSI 40Mb/s ..... *(195)*

SIIG (5YR. WARRANTY)
CN2419 EIDE/ 4HD/ 2FD/ 16-bit ISA 49
CN2420 EIDE/ 4HD/ 16-bit ISA 39
CN2424 EIDE/ 4HD/ 2FD/ 2S 1P 1G/ 16550/ IEEE1284 . 62

OTHERS
PROMISE EIDE 2300+ IDE/ 4HD/ 2S 1P/ 16550 59

4. CPU

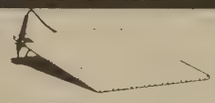
AMD
K6-200 w. Fan 79
K6-233 w. Fan / Boxed version 3 yr warranty 99/99
K6-300 w. Fan Boxed version, 3 yr warranty 169

Cyrix (W. FAN)
6x86MX-P166 / Boxed version 69/89
6x86MX-P200 Boxed version 119

intel
MMX-166Mhz Pentium® 99
MMX-200Mhz Pentium® / w. 3 yr. warranty . 109/115
MMX-233Mhz Pentium® / w. 3 yr. warranty . 139/159
P54C-133Mhz Pentium® 75
P54C-150Mhz Pentium® 89
P54C-166Mhz Pentium® 89
P54C-200Mhz Pentium® 139
Pentium® Pro 150Mhz w. fan & 256k 169
Pentium® Pro 180Mhz w. fan & 256k 169
Pentium® Pro 200Mhz w. fan & 256k 409
Pentium® II 233Mhz w. fan & 3 yr. warranty 235
Pentium® II 266Mhz w. fan & 3 yr. warranty 285
Pentium® II 300Mhz w. fan & 3 yr warranty 419
Pentium® II 333Mhz w. fan & 3 yr. warranty 539
Pentium® II 350Mhz w. fan & 3 yr. warranty 679
Pentium® II 400Mhz w. fan & 3 yr. warranty 899

OTHERS
Cooling Fan for 486 CPU 3.95
Cooling Fan for Pentium® / Pentium® II 4.95/9.95
Edimax CPU Switch:
- CAS221 VGA, Keyboard, Mouse for 2PC 135
- CAS421 for 4PC (AT & PS/2) 199
- CAS601 for 6PC AT only / PS/2 ..... 235/236

5. DIGITIZER



SUMMASKETCH (CALCOMP)
*III 12x12, 4 or 6 button Cursor or Stylus ..... *(249)*
III Pro 12x18, 4 button Cursor 465

WACOM
*Art Pad II 4x5, w. Erasing Ultra Pen, PC ..... *(129)*
Art Pad II 4x5, w. Erasing Ultra Pen, MAC 139
*Art Pad II 4x5, w. Painter, PC ..... *(155)*
*Art Z II 6x8, w. Erasing Ultra Pen, PC ..... *(299)*
*Art Z II 6x8, w. Fractal Expression, PC ..... *(359)*
Art Z II 6x8, w. Painter 5.0, PC 375
Art Z II 6x8, for MAC 309
Art Z II 12x12, w. Erasing Ultra Pen, PC 415
Art Z II 12x12, for MAC 429
Art Z II 12x12, w. Fractal Expression, PC 479
*Art Z II 12x12, w. Painter 5.0, PC ..... *(485)*
Art Z II 12x18, w. Erasing Ultra Pen, PC 685
CT-0405 Pen Partner w. Corel Print & Photohouse .. 95
UC-520 4-button Pack 45
UD-2 MAC Kit 45
UP-201 Pressure Sensitive Stylus 49.95
UP-701E Erasing Ultra Pen 64.95
UP-801EW Erasing Ultra Pen 69.95

6. DRIVES

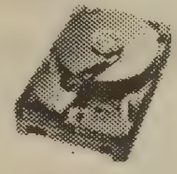
One Year Warranty on All Disk Drives

FLOPPY DRIVE:

MITSUBISHI
LS-120 120MB w. cartridge, 3.5" 115

TEAC
1.44MB 3.5" / w. frame 25/29

HARD DRIVE:



FUJITSU
MPB3032AT 3.2GB 10ms 128k IDE Ultra-DMA 149
MPB3043AT 4.3GB 10ms 128k IDE Ultra-DMA 169
MPA3064AT 6.4GB 10ms 128k IDE Ultra-DMA ... 225

IBM
*DCAS-32160 2GB 8.5ms UW-SCSI, 5400rpm .. *(165)*
*DCAS-34330 4.3GB 8.5ms UW-SCSI, 5400rpm .... *(275)*

KINGSTON
DataPak PCMCIA 520MB 479

MAXTOR
88400D 8.4GB 10ms IDE Ultra-DMA 285

Quantum
SALE
(limit 1 per customer, while supplies last)
ST32100SE-S 2GB 10ms 128k SCSI-2 199

ST32100SE-A 2 1GB 9.5ms 128k IDE Ultra-DMA . 139
ST33200SE-A 3.2GB 9.5ms 128k IDE Ultra-DMA . 159
ST34300SE-A 4.3GB 9.5ms 128k IDE Ultra-DMA . 179
ST36400SE-A 6.4GB 9.5ms 128k IDE, 5400rpm 259
ST38400SE 8.4GB IDE Ultra-DMA 319
ST33200E 3.2GB 10ms 128k Ultra SCSI 255
ST34300E 4.3GB 10ms 128k Ultra SCSI 285
ST36400SE-S 6.4GB 10ms 128k Ultra SCSI 379
Viking II QM304550PX-SW 4.5GB Wide SCSI 459
Atlas 3 QM309100TD-LW 9.1GB L-Wide-SCSI 815
Atlas 3 QM318200TD-LW 18GB L-Wide-SCSI 1295

SAMSUNG
WU33205A 3.2GB 10ms 128k IDE Ultra-DMA 145
WU34323AU 4.3GB 10ms IDE Ultra-DMA 159

Seagate
ST-33232A 3.2GB IDE DMA 149

* 5 year warranty for below drives *
ST-32272N 2.2GB 9ms Ultra SCSI 329
ST-32272W 2.2GB 9ms Ultra-Wide SCSI 349
ST-34501W 4.5GB UW-SCSI, 10,000rpm 559
ST-34573N 4.5GB 9ms Ultra SCSI 529
ST-34573W 4.5GB 9ms Ultra-Wide SCSI 539
ST-19101N 9GB Ultra SCSI, 10,000rpm 879
ST-19101W 9GB UW-SCSI, 10,000rpm 899
ST-39173N 9GB Ultra SCSI, 7,200rpm 709
ST-39173W 9GB Ultra-Wide SCSI, 7,200rpm 719

**(sale price) ..... SPECIALS, limited to stock on hand*
Prices subject to change without notice

http://www.centralcomputer.com for current prices & product catalog

TOSHIBA (FOR NOTEBOOK)
MK3205MAV 3.2GB 13ms 128k IDE 2.5" 229
MK4006MAV 4GB 13ms 359

WESTERN DIGITAL
SALE
(limit 1 per customer while supplies last)
AC23200 3.2GB 11ms 128k IDE 155

AC12100 2.1GB 12ms 128k IDE DMA 145
AC34300 4.3GB 9.5ms IDE DMA 169
AC35100 5.1GB 9.5ms IDE Ultra-DMA 199
AC36400 6.4GB 9.5ms IDE Ultra-DMA 225

* 5 yr warranty for below drives *
WDE2170 2.17GB 8ms 512k Ultra SCSI 349
WDE2170 2.17GB 8ms 512k Ultra-Wide SCSI 379
*WDE4360 4.3GB 8ms 1MB Ultra SCSI ..... *(475)*
*WDE4360 4.3GB 8ms 1MB Ultra-Wide SCSI ..... *(475)*

REMOVABLE DRIVE:

AVATAR ($50 REBATE)
Shark 250MB Portable Drive Parallel 235
Shark 250MB Cartridge Single 37.95

iomega
Jaz Disk 1GB - Single / 3-pk / 5-pk 79/235/389
*Jaz Drive 1GB SCSI Int / Ext ..... *(255/269)*
Jaz Traveller 45
Zip Disk 100MB - Single / 3-pk 11.95/36
- 6-pk / 10-pk ..... 70/*(105)
*Zip Drive 100MB Parallel ..... *(129)*
Zip Drive 100MB IDE Int oem 85
Zip Drive 100MB SCSI Int oem 105
*Zip Drive 100MB SCSI Ext ..... *(129)*
*Zip Drive 100 Plus (SCSI & Parallel) ..... *(169)*
Zip Zoom SCSI Accelerator Card for Ext 46

SYQUEST
Sparq 1GB IDE Int 189
Sparq 1GB Parallel 195
*1GB Sparq Cartridge ..... *(31.50)*
SyJet 1.5GB IDE Int 279
SyJet 1.5GB Parallel 289
SyJet 1.5GB SCSI Int / Ext 279/289
*1.5GB SyJet Cartridge ..... *(65)*

7. I/O CARD

ADDONICS (QUICKPATH)
Flexport 22EX 2S/ 2P/ 16650 95
Flexport 42 4S/ 2P/ Bi-Dir/ 16550 95

KOUWELL
KW508-E Single Parallel Port 12
KW524-J 2S/ 2P/ 16550 23

SIIG
Cyberpro 2S Highspeed w. 16650 55
Cyberpro 4S Highspeed w. 16650 85
IO1809 2S/ 1P/ 16550 39
IO1829 Cyber Single Serial PCI 55
IO1839 Cyber Parallel PCI 55
1EEE 1284 EPP/ ECP/ Parallel Port 32

SOCKET COMMUNICATION
PCMCIA Serial I/O 16550 149
PCMCIA Dual Serial I/O 215

STB 4-COM
4S/ 16-bit/ 16550/ support Com 1-8, IRQ 99

8. KEYBOARD

FOCUS
FK2001 104 for Win'95 26
FK7200 104 Trackball 27
FK8200 124 Key w. calculator 42
FK9200W 124 Key w. trackball & calculator 45

KEYTRONIC
104 Key - White / Black ..... *(24)/39
104 Key PS/2 26
104 Key PS/2 & AT Combo 28
104 Key Tag Along w. Mouse - White / Black 28/29
LT Touch Pad 85
Wireless IR Classic 104 58
Wireless IR Touchpad / Trackball ..... /5/74

Microsoft
*Natural Keyboard Elite PS/2 oem ..... *(39)*

QTRONIX
Scorpius 104+ for Win'95 - White / Black 23/24
Scorpius 105 / w. Trackball 32/49

SIIG
Minitouch 81 Key, Click 45
W104 for Win'95 29
Wintouch 104 35

OTHERS
ANTEC 104 Key - White / Black 18/39
ANTEC Wrist Support 9.99
BTC 5100 Mini 80 Key 29
EZ 1000 Smart 29
EZ 9720 3D Smart 39
MAXI 101 Key 25
*MITSUMI 104 Model ZW ..... *(14.50)*

9. MEMORY

DRAM
256k x 4 - 70ns 3.50

DIMM
4 x 72 - 60ns, 168-pin (32MB) 89
8 x 72 - 60ns, 168-pin (64MB) 159
16 x 72 - 60ns, 168-pin (128MB) 309
Unbuffer PC100 4 x 64 - 8ns (32MB) 69
Unbuffer PC100 8 x 64 - 8ns (64MB) 119
Unbuffer PC100 16 x 64 - 8ns (128MB) 229
Unbuffer SDRAM 2 x 64 - 10ns (16MB) 25
Unbuffer SDRAM 4 x 64 - 10ns (32MB) 45
Unbuffer SDRAM 8 x 64 - 10ns (64MB) 89
Unbuffer SDRAM 16 x 64 - 10ns (128MB) 169
PC100 w/ECC 8 x 72 - 8ns (64MB) 139
PC100 w/ECC 16 x 72 - 8ns (128MB) 269
SDRAM w/ECC 4 x 72 - 10ns (32MB) 55
SDRAM w/ECC 8 x 72 - 10ns (64MB) 109
SDRAM w/ECC 16 x 72 - 10ns (128MB) 209

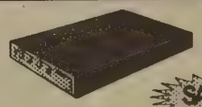
SIMM
4 x 9 - 60ns, 30-pin (4MB) 15
1 x 36 - 60ns, 72-pin (4MB) 15
2 x 36 - 60ns, 72-pin (8MB) 35
4 x 36 - 60ns, 72-pin (16MB) 35
8 x 36 - 60ns, 72-pin (32MB) 59
16 x 36 - 60ns, 72-pin (64MB) 169
EDO 1 x 32 - 60ns (4MB) 9
EDO 2 x 32 - 60ns (8MB) 15
EDO 4 x 32 - 60ns (16MB) 25
EDO 8 x 32 - 60ns (32MB) 45
EDO 16 x 32 - 60ns (64MB) 149
Non Parity 1 x 32 - 60ns (4MB) 9
Non Parity 2 x 32 - 60ns (8MB) 15
Non Parity 4 x 32 - 60ns (16MB) 25
Non Parity 8 x 32 - 60ns (32MB) 45
Non Parity 16 x 32 - 60ns (64MB) 149

NOTEBOOK MEMORY (3RD PARTY)
for Compaq Armada 4120/ 4130
- 8MB / 16MB / 32MB 55/79/139
for Compaq Contura 410C/ 420C/ 430C
- 4MB / 8MB / 16MB 45/55/85
for DEC HiNote VP535/ 545/ 567
- 8MB / 16MB / 32MB / 64MB 55/79/139/295
for HP Omnibook 5000C/ CT/ CTS/ 5500/ 5700
- 8MB / 16MB / 32MB / 64MB 59/85/139/299
for IBM Thinkpad 365X/ 560/ 760EX/ ED/ EL
- 8MB / 16MB / 32MB 65/135/185
for NEC Versa 6030X/ H
- 8MB / 16MB / 32MB 65/99/165
for Panasonic CF62EX/ 25EX
- 8MB / 16MB / 32MB 95/145/325
for TI TravelMate 6020/ 6030
- 8MB / 16MB 79/149
for Toshiba Libretto 50CT
- 8MB / 16MB 65/179
for Toshiba T1900/ T4500/ T200CS
- 4MB / 8MB / 16MB 89/109/165
for Toshiba T2100 series
- 4MB / 8MB / 16MB / 24MB 45/59/85/145
for Toshiba Portege 300CDT
- 16MB / 32MB 145/169
for Toshiba Portege 610CT
- 8MB / 16MB / 32MB 79/99/169
for Toshiba Portege 650/ 660CDT
- 8MB / 16MB / 32MB / 64MB 75/99/169/299
for Toshiba Satellite Pro 400
- 8MB / 16MB / 32MB 75/99/169
for Toshiba Tecra 500CDT
- 16MB / 32MB / 48MB 89/159/225
*for Toshiba Tecra 700 - 32MB ..... *(235)*
for Toshiba Tecra 710/ 720/ 730CDT
- 8MB / 16MB / 32MB / 64MB 89/130/249/315

PCMCIA FLASH RAM CARD
4MB / 8MB / 10MB / 16MB / 20MB 125/165/179/225/259

PRINTER MEMORY
for HP Laser II / IID
- 1MB / 2MB / 4MB 69/89/175
for HP Laser III / IIIP / IIID
- 1MB / 2MB / 4MB 65/89/125
for HP Laser 4L - 1MB 49
for HP Laser 4 / 4M / 4Si / 1200C
- 4MB / 8MB 35/59
for HP Laser 4+ / 4V / 5 / 5N / 5P / 5Si / 6P / Color Laser 5 / Color Laser 5M / 1600C
- 4MB / 8MB / 16MB / 32MB 29/45/79/165
for HP Laser 5L / 6LXi
- 4MB / 8MB 65/89
for HP Laser 4000
- 8MB / 16MB / 32MB 49/79/199

10. MODEMS & FAX



SALE

3COM (US ROBOTICS)
Courier I-Modem #U w. Analog Int / Ext 239/285
Courier v.90 56k Int / Ext 235/269
*Courier V. Everything 56k Int / Ext ..... *(205/235)*
*#839 Sportster v.34 33.6 Fax Ext ..... *(105)*
*#840 Sportster v.34 33.6 Fax Int oem / reg ..... *(79/89)*
#1171 Sportster v.34 33.6 Fax/ Voice/ Mail/ Speaker Phone Int oem / reg 95/105
#1172 Sportster v.34 33.6 Fax/ Voice/ Mail/ Speaker Phone Ext 125
#1784 Sportster 56k w. Voice Ext 185
#1785 Sportster 56k w. Voice Int 159
*#1786 Sportster 56k Ext ..... *(155)*
*#1787 Sportster 56k Int ..... *(99)*
#5606 Sportster 56k v.90 w. Voice Ext 225
#5685 Sportster 56k v.90 Voice Int oem / reg 139/169
#5686 Sportster 56k v.90 Ext 169
#5687 Sportster 56k v.90 Int oem / reg 125/149
#9040 Sportster ISDN 128k Int 185

APOLLO
PCMCIA 56k w. AT&T chips 99

BOCA
SALE
(5 in-1 multimedia)
SE14SRS 14.4 Sound Expression Int ..... *(29)
SE34SRS 28.8 Sound Expression Int ..... *(49)

CREATIVE LABS
Modem Blaster Flash 56k Voice, Speaker Phone Int 125

DIAMOND
Supra Express 33.6 Fax PnP Int 65
Supra Express 56k Fax PnP Int oem / reg 75/105
Supra Express 56k Fax PnP Ext 135
Supra Max 56k v.90 PCI Int 75

Hayes
*Accura 33.6 Fax Int / Ext ..... *(125/149)*
Accura 56k Int / Ext 159/179
Optima 33.6 v.34 Fax Int / Ext 189/199
*Optima 288 v.34 PCMCIA w. EZ jack ..... *(99)*
*PC288MT 28.8 v.34 Fax Ext ..... *(99)*
*PM288HC 28.8 v.34 Int ..... *(69)*
PM336HC Int / PM336MT Ext 95/115
PM56HC Int / PM56MT Ext 145/165

JATON
Explorer 56k X2 Fax/ Voice/ Speaker Phone Int 79

MEGAHERTZ
*XJ1336 PCMCIA 33.6 Flash upgradable ..... *(175)*
*XJ1560 PCMCIA 56k ..... *(209)*
XJ2560 PCMCIA 56k 179
*XJ4336M1 PCMCIA 33.6 cellular w. Motorola cable *(195)*
XJ4336 Cellular Capable 33.6 179
*XJ5560 Cellular Capable 56k ..... *(219) 235*

MICROCOM
*Deskporte 28.8P v.34 Fax Ext Parallel ..... *(99)*
*Deskporte 28.8S v.34 Fax Ext ..... *(95)*
Officeporte 33.6 Voice ASVD Ext 155

MOTOROLA
SALE
BitSerfer #1749 Pro ISDN Multilink PPP Ext... *(299)
BitSerfer #1750 ISA ISDN ..... *(199)
BitSerfer #1994 Pro ISA for ISDN ..... *(298)
BitSerfer Pro ISDN Easy Ext ..... *(275)
Modem Serfer 33.6 Int / Ext ..... *(75/95)
Modem Serfer 56k Int / Ext ..... *(94/109)
NT1D Network Terminator 165
Online Serfer 28.8 Fax Int / Ext ..... *(65/69)
Premier 33.6 Int / Ext ..... *(149/169)
Voice Serfer 33.6 Int / Ext ..... *(99/115)

SIMPLE TECHNOLOGY
Communicator 56k PCMCIA Voice & Cellular 199

WISECOM
SALE
(5 year warranty)
3314-JS3 33.6 Data Fax/ Voice Int (Rockwell) . 45
3314-JS7 33.6 Data Fax/ Voice Int (Davidcom) 39
5614-JS3 56k Data Fax/ Voice Int (Rockwell) .. 69

XIRCOM
*CM-33 33.6 Fax PCMCIA ..... *(159)*
CM-56G 56k PCMCIA Global Access 215

ZOOM (7 YR WARRANTY)
*#2805 33.6 Fax Int ..... *(95)*
#2818 56k Flex Comstar Int 135
#2819 56k Fax Int 115
*#2836 33.6 Fax Ext ..... *(105)*
#2849 56k Fax Ext 136

11. MONITORS

Monitors on Display at our stores for your comparison

Acer
*78iE 17" 1600 x 1200 .26 NI 68hz ..... *(379)*

ARTMEDIA (SONY OEM)
*TX1664 15" 1280 x 1024 .25 NI 60hz ..... *(289)*
TN1885T 17" 1600 x 1200 .25 NI 60hz 599
TX1864 17" 1280 x 1024 .25 NI 60hz 499
TN2185T 20" 1600 x 1200 .30 NI 60hz 1055
GT-960T 20" 1600 x 1200 .25 NI 75hz 1159

CTX
PR700 17" 1280 x 1024 .25mm AG, 30-70khz 495
*PR710 17" 1600 x 1200 .25mm AG, 30-92khz ..... *(535)*
*VL710 17" 1600 x 1280 .26 30-92khz ..... *(349)*
*VL950 19" 1600 x 1200 .26 NI ..... *(565)*
EX800 20" 1600 x 1280 .28 30-85khz 879
*EX900 21" 1600 x 1280 .28 NI ..... *(879)*

DIGIVIEW
HR-1435 14" 1024 x 768 .28 NI 85hz 139
HR-1510 15" 1280 x 1024 .28 NI 85hz 179
HR-1707+ 17" 1280 x 1024 .28 NI 85hz 299
HR-1709D 17" 1600 x 1200 .25 NI 449
HR-1901 19" 1600 x 1200 .26 NI 75hz 639

EIZO
*FX-C5 17" 1280 x 1024 .28mm AG, 65hz ..... *(635)*
TX-C7S 17" 1600 x 1200 .25, Trinitron 789
TX-D7S 20" 1600 x 1200 .25mm AG, 75hz 1545
FX-E8 21" 1600 x 1200 .26mm AG, 87hz 2045

HITACHI SuperScan®
*CM500U 15" Flat 1280 x 1024 .28 NI, 65hz ..... *(239)*
*CM630U 17" Flat 1600 x 1200 .26 NI ..... *(465)*
*CM751 19" 1600 x 1200 .26 NI, 75hz ..... *(815)*
*CM800U 21" 1600 x 1200 .22 NI ..... *(1095)*
*CM802U 21" 1600 x 1200 .22 NI ..... *(1255)*
*CM803U 21" 1800 x 1440 .22 NI, 77hz ..... *(1529)*

iiyama
SALE
(3 Year warranty)
MF-8515G 15" 1280 x 1024 .28 NI 64hz 249
MF-8617E 17" 1600 x 1200 .26 NI, 69hz 479
MT-9017E 17" 1600 x 1200 .25mm AG, 72hz 559
S-901GT 19" 1600 x 1200 .26 NI 80hz 765
S-102GT 21" 1800 x 1440 .27 NI 74hz 1115
A-102GT 21" 1800 x 1440 .28mm AG, 74hz 1125

LCD FLAT PANEL
TXA3601GT 14.1" TFT, 1024 x 768, 72hz 995

IMPRESSION
3 Plus 14" 1024 x 768 .28 NI 145
*5 Plus 15" 1280 x 1024 .28 NI ..... *(165)*
*7 Plus 17" 1280 x 1024 .28 NI ..... *(299)*
Vienna Pro 17" 1600 x 1280 .25 NI 469

MAG
*DJ702 17" 1280 x 1024 .26 NI 65hz ..... *(339)*
*DJ702E 17" 1280 x 1024 .28 NI ..... *(339)*
*DJ747 17" 1600 x 1200 .26 NI ..... *(425)*
*DX700T 17" 1280 x 1024 .25 NI ..... *(399)*
*DJ800 19" 1600 x 1200 .26 NI ..... *(595)*

NEC
*A500 15" 1280 x 1024 .28 NI 60hz ..... *(235)*
*E500 15" 1280 x 1024 .25 NI 65hz ..... *(285)*
*A1500 15" 1280 x 1024 .25 NI 65hz ..... *(349)*
*A700 17" 1280 x 1024 .28 NI 65hz ..... *(419)*
*E700 17" 1600 x 1200 .25 NI 65hz ..... *(535)*
*A1700 17" 1280 x 1024 .25 NI 65hz ..... *(589)*
*P750 17" 1600 x 1200 .25 NI 75hz ..... *(765)*
E900 19" 1600 x 1200 .28 NI 73hz ($50 Rebate) 825
*E1100 21" 1600 x 1200 .28 NI 65hz ..... *(1069)*
*P1150 21" 1600 x 1200 .25 NI 75hz ..... *(1195)*

NOKIA
447L 17" 1024 x 768 .28 NI 80hz ..... *(549)
447XAV 17" 1280 x 1024 .25mm AG, NI 85hz 715

**(sale price) ..... SPECIALS, limited to stock on hand*
Prices subject to change without notice

http://www.centralcomputer.com for current prices & product catalog

*447Xi 17" 1280 x 1024 .25mm AG, NI 85hz ..... *(689)*
445XAV 21" 1600 x 1200 .28 NI 80hz 1845
*445Xi 21" 1600 x 1200 .26 NI80hz, TCO95 ..... *(1425)*
445XPro 21" 1800 x 1440 .26 NI 80hz 1549

OPTIQUEST

V655 15" 1280 x 1024 .28 NI 61hz, Digital 329
V775 17" 1600 x 1280 .26 NI 68hz 625
V95 19" 1600 x 1280 .26 NI 76hz *729*
2082DC 20" 1600 x 1200 .28 NI 1199

PIXO

15" 1280 x 1024 .28 NI 179
17" 1280 x 1024 .28 NI 289

PRINCETON

*EO70 17" 1280 x 1024 .28 NI 65hz ..... *(325)*
*EO75 17" 1600 x 1280 .26 NI ..... *(465)*
*EO90 19" 1600 x 1200 .26 NI ..... *(689)*
*Ultra 17+ 17" 1600 x 1280 .28 NI ..... *(459)*

RELISYS

RE451 14" 1024 x 768 .28 NI 129

SCEPTRE

(3 Year Warranty)
*P401 14" 1024 x 768 .28 NI 60hz, Digital ..... *(139)*
*P511 15" 1280 x 1024 .28 NI 60hz, Digital ..... *(179)*
P73 17" 1280 x 1024 .28 NI 65hz, Digital 315
*P75A 17" 1600 x 1200 .26 NI 70hz, Digital ..... *(389)*

LCD PANEL: (1 yr warranty)

CD-1115 11.3" DSTN, 800 x 600, 64k color 875
CD-1112T 12.1" TFT, 800 x 600, 256k color 1725
FT15 15" TFT, 1024 x 768, color 2499

SHARP (LCD PANEL)

CE-LT14MN 13.8" Active XGA w. Speakers 1279
LL-T150A 15" Active XGA w. Speakers 2025

SONY

*CPD-100ES 15" 1280 x 1024 .25mm AG, 60hz ..... *(285)*
*CPD-100GS 15" 1280 x 1024 .25mm AG, 60hz ..... *(339)*
*CPD-200ES 17" 1280 x 1024 .25mm AG, 60hz ..... *(495)*
*CPD-200GS 17" 1280 x 1024 .25mm AG, 75hz ..... *(599)*
*GDM-200PS 17" 1600 x 1200 .25mm AG, 70hz ..... *(769)*
*GDM-400PS 19" 1600 x 1200 .25mm AG, 75hz ..... *(995)*
*GDM-500PS 21" 1600 x 1200 .25mm AG, 85hz .. *(1329)*

TVS

9" 1024 x 768 VGA Mono 115

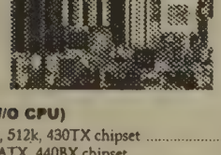
ViewSonic

E641 14" 1024 x 768 .28 NI 85hz 175
E655 15" 1280 x 1024 .28 NI 81hz 245
*15GA 15" 1280 x 1024 .27 65hz, Speaker Phone .... *(365)*
P665 15" 1280 x 1024 .27 NI 66hz 265
EA771 17" 1280 x 1024 .27 NI 66hz, PnP 489
*G771 17" 1280 x 1024 .27 NI 66hz ..... *(409)*
*P775 17" 1600 x 1200 .25 NI 76hz ..... *(485)*
PT775 17" 1600 x 1200 .25 NI 77hz, Sonictron 689
G790 19" 1600 x 1280 .26 NI 76hz 789
PS790 19" 1600 x 1200 .25 NI 835
*G800 20" 1600 x 1280 .28 NI 69hz ..... *(999)*
G810 21" 1600 x 1200 .25 NI 73hz 1039
P810 21" 1600 x 1200 .25 NI 76hz 1115
P815 21" 1800 x 1440 .25 NI 76hz 1235
PT813 21" 1600 x 1200 .28mm AG, NI 85hz 1285
*29GA 29" 1280 x 1024 .75 stripe pitch ..... *(1999)*

VIEWTRONIC

*DX-1764Q 17" 1280 x 1024 .26 NI ..... *(299)*

12. MOTHERBOARDS



ABIT (W/O CPU)

AX-5 ATX, 512k, 430TX chipset 95
BX-6 P-II, ATX, 440BX chipset 159
LX-6 P-II, ATX, 440LX chipset 125
*PD5N 512k, SIS chipset ..... *(78)*
*PX-5 512k, 430TX chipset ..... *(79)*
TX-5 512k, 430TX chipset 94

ASUS (W/O CPU)

P2B ATX, 440BX chipset 179
P2BS ATX, 440BX chipset, SCSI 299
*P2L97 ATX, 440LX chipset ..... *(139)*
*P2L97S ATX, 440LX chipset, SCSI ..... *(225)*
P2L97DS ATX, Dual, 440LX chipset, SCSI 349
TX97L 512k, TX chipset, Dimm 113
TX97LE 512k, TX chipset, 4 Simm/ 2 Dimm 114
TX97X ATX, 512k, TX chipset, Dimm 118
TX97XE ATX, 512k, 4 Simm/ 2 Dimm 119
TX97XE w. Sound 159
TXP4 512k, TX chipset, AT 105

FIC (W/O CPU)

PA-2007 P-200, 1MB, Via, AT, IDE I/O 105
PA-2011 ATX, P-200, 512k, Via 105
PA-2012 ATX, P-233, 1MB, Via 119
VA-502 P-200, 512k, Via, IDE I/O 79

GIGABYTE (W/O CPU)

GA586TX2 512k, 430TX, IDE I/O 105
GA586ATX3 ATX, 512k, 430TX, IDE I/O 109
GA686LX ATX, 440LX, IDE I/O 139

intel (W/O CPU)

Atlanta P-II, 512k, 440LX / w. Sound 165/185
DK440LX P-II, Dual, Wide SCSI, Sound, for WS ... 495
R440LX P-II, Dual, Wide SCSI,Lan,VGA, for Server 499
Seattle P-II (350-400Mhz), 440BX chipset,
- w. ISA Sound / PCI Sound 199/215

J-BOND (W/O CPU)

*PCI500C-J: ATX, P-300, CPU Alarm ..... *(99)*
- w. AHA2940UW SCSI 229
PCI500C-K: P-300, 512k, 430TX, USB 89
- w. AHA-2940U SCSI 175
- w. AHA-2940UW SCSI 225
PCI500C-N: P-300, VP3, AGP, 3 Dimm 94
PCI600E: ATX, P-II, 440LX, AGP, 4PCI 125
PCI600F: ATX, P-II (233-450)Mhz, 440BX 155

M-TECH (W/O CPU)

Mustang R534E P-200, 512k, IDE I/O 109
M549 512k, Super TX chipset, 4 Simm/ Dimm 85
R539 512k, TX, 4 Simm/ 2 Dimm, IDE I/O 115
R557 ATX, 512k, TX, 4 Simm/ 2 Dimm 125

OFFICE PRO

P55VP 512k, Via chipset 99
P6LX P-II 105

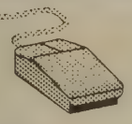
SUPERMICRO (W/O CPU)

P5MMA98 ATX, 512k, TX chipset 109
P5MMS98 512k, TX chipset 107
P6DBE P-II, Dual, 440BX chipset 289
P6DBS P-II, Dual, 440BX chipset, SCSI 425
*P6DLS P-II, Dual, 440LX, w. 2940UW SCSI ..... *(315)*
P6SBA 440BX chipset, EIDE I/O 165
P6SBS 440BX chipset, SCSI 289
P6SLA P-II, ATX, 440LX, EIDE I/O 159
P6SNS Pro-200, w. 2940UW SCSI 225

TYAN (W/O CPU)

1564D Tomcat IV 512k, Dual, 430HX chipset 175
1564S Tomcat IV 512k, 430HX chipset 139
1571S 512k, 430TX chipset 109
1573S ATX, 512k, 430TX chipset 115
1692DL ATX, Tiger II Dual, 440LX 229
1692S ATX, Tiger II Single 149

13. MOUSE & JOYSTICK



CIRQUE (TOUCH PAD)

Easy Cat PnP 29
Power Cat w. Signature Pen 65
Smart Cat w. Scroll & Zoom 44

IBM

Black Scroll Mouse 39.95
White Scroll Point Mouse 39

KENSINGTON

Expert Bus 5.0 115
*Expert Serial & Trackball 5.0 ..... *(84)*
*Mouse in a Box ..... *(16.95)*
*Orbit Trackball ..... *(49)*
*Thinking Mouse Serial & PS/2 ..... *(55)*

LOGITECH

*Coredless Mouseman Pro ..... *(49)*
*First Mouse Plus oem ..... *(19)*
Mouseman Bus 64
Mouseman Combo PC & PS/2 oem / reg 24/39
Mouseman Plus 52
Surfman Cordless Internet Controller 85
Trackman Live Cordless 125
Trackman Marble for Win'95 oem / reg 43/82
Trackman Marble FX 89

Microsoft

Bus 2.0 400dpi w. Bus Card oem / 5-pk 65/325
Combo Mouse (Serial + PS/2) 49.95
Easyball w. Freddi Fish CD 49.95
*Home Mouse Serial ..... *(19.99)*
*IntelliMouse 3.0 for Win'95 ..... *(59.95)*
- oem Serial / oem PS/2 ..... 24/28
IntelliMouse Trackball 69.95
PS/2 2.0 oem 25
Serial 2.0 400dpi oem 19.95

MOUSE SYSTEMS

Mouse! Serial w pad 19
Omni Mouse 26
*PC Trackball II ..... *(35)*
ProAgio (5-button serial) 39
Serial Bus Card (9IRQS), 5 Com 29
White Mouse (3-button) 29.95

NEC

King Mouse 2-button 13.50
King Mouse PS/2 ..... 13.95

QTRONIX

Libra 90 Pro Trackball 27
Opto-Mechanical Mouse 7.50

JOYSTICK:

C.H. PRODUCTS

Flight Stick Pro 53
Pro Pedals 79.95
Virtual Pilot / Pro (Yoke) 68/75

LOGITECH

Wingman Extreme 29

Microsoft

Side Winder 1.0 29
Side Winder 3D Pro 44
Side Winder Force Feedback 145
Side Winder Gamepad 29.95
Side Winder Precision Pro 56

QUICKSHOT

QS123A Warrior 5 12
QS206 Sky Master / w. SU-27 Flanker 25/39
QS216 Strato Warrior 23
QS217 Command Pad 9.95
QS5600V2 Master Pilot '98 + Programmer 69
QS6222 3D Striker + Hexen II 55

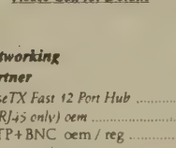
THRUSTMASTER

ACM Game Card 29.95
Elite Rudder Pedals 75
F-16 FLCS / F-16 TQS 125/129
F-22 Pro Flight Control 139
Flight Control System MKII 65
Flight Control System Pro 108
*Formula T2 ..... *(109)*
Grandprix Driving Control 53
Nascar Pro Racing Control 124
*Phazer Pad ..... *(39.95)*
Rudder Control 109
Weapon Control MKII 109
Wizzard (pinball controller + Royal Flush CD) 39
*X-Fighter Flight Control ..... *(45)*
XL Action 28

OTHERS

*Cobra (Mouse Systems) ..... *(9.95)*
Cyclone 3D 38
PC Analog Pro 19.95
PC Gamepad / Pro (10-button) 17/29
3D Virtual Images Mouse Pad ..... 7.99 ea.
Batman Logo Mouse Pad 5.49
Gotham City Mouse Pad 6.99
Looney Tunes Pad w. Screen Saver 9.95
Superman / Logo Mouse Pad 6.99/5.49
Walt Disney Mouse Pad ..... 4.99 ea.
Warner Brothers Mouse Pad ..... 5.99 ea.

14. NETWORK



Government & Education Pricing
Please Call for Details

3Com
Networking Partner

*3C250B 100BaseTX Fast 12 Port Hub ..... *(845)*
*3C509B TPO (RJ45 only) oem ..... *(49)*
3C509B-TPC TP+BNC oem / reg ..... *(59)/109
3C509B Combo oem / reg 89/119
3C515-TX Fast 10/100 ISA oem / reg 129/145
*3C562D PC Card Modem 33.6 + Lan TPO ..... *(249)*
*3C562D PC Card Modem 33.6 + Lan Combo ..... *(279)*
3C574-TX 10/100 PCMCIA 149
3C575-TX 10/100 Card Bus PC Card 159
3C589D PCMCIA TP / 5-pk ..... *(139)/629
3C589D PCMCIA Combo / 5-pk ..... *(179)/849
3C597-TX EISA 10/100 TP 239
*3C882 Impact IQ ISDN v.32bis Ext ..... *(215)*
3C892 Office Connect ISDN Net Modem 389
3C900 PCI TPO 105
3C900 PCI Combo oem / reg ..... *(85)/135
*3C905-TX PCI 10/100 TP oem / reg ..... *(75/89)*
3C905B-TX PCI (remote wake-up) oem / reg 74/95
*3C905B-NM PCI 10/100 TP oem ..... *(69)*
*3C16170 Link Builder 12 Port ..... *(299)*
3C16405 Port Switch 40 Hub 12 Port 475
*3C16406 Port Switch 40 Hub 24 Port ..... *(795)*
3C16590 Dual Speed Hub 12 Port 1165
3C16591 Dual Speed Hub 24 Port 1795
*3C16670A Superstack II Hub 12 Port ..... *(469)*
*3C16671A Superstack II Hub 24 Port ..... *(799)*
*3C16700 TPO Office Connect Hub 8 Port ..... *(95)*
*3C16701 TPC Office Connect Hub (8TP+BNC) ... *(129)*
*3C16702 Office Connect Hub (16TP+BNC) ..... *(215)*
*3C16703 Office Connect Hub 4TP Combo ..... *(89)*
*3C16704 Office Connect Hub 4TP ..... *(69)*
*3C16720 Office Connect 100 Hub 8 Port ..... *(445)*
*3C16721 TP1200, 12 Port Fast Hub ..... *(495)*
*3C16722 TP800, 8 Port Fast Hub ..... *(339)*
*3C16723 TP400, 4 Port Fast Hub ..... *(199)*
*3C16731 Office Connect Switch Hub 140M ..... *(665)*
3C16733 4 Port 10/100 Switch 479
*3C16900A Switch 1000 24 Port 1 Fast ..... *(1595)*
*3C16901A Switch 1000 12 Port 1 Fast ..... *(1195)*
*3C16942A Switch 3000TX 10/100 12 Port ..... *(1595)*

NETSERVER:

*Netserver/8 Plus (#1877) ..... *(2795)*
*Netserver/8 I-Modem Plus (#1879) ..... *(3495)*

ALLIED TELESYN

3012TR Workgroup Hub (12TP+AUI+BNC) 165
3016TR Workgroup Hub (16TP+AUI+BNC) 189
3024TR Workgroup Hub (24TP+AUI+BNC) 249
MC12T UTP to BNC Conversion Kit 119
*MR415T Mini Hub 4 Port ..... *(49) 54*
*MR815T Mini Hub 8 Port ..... *(59) 64*
MR820TR Microhub 8 Port (8TP+AUI+BNC) 115
MX26F Fiber Optics Transceiver 145
MX40F Fiber Optics Transceiver 139

APOLLO

PCMCIA LAN Ethernet Adapter Combo 79

ARTISOFT

Extra Mail for Win'95 215
I-Share 2.5, 32 sessions (internet for Lantastic) 179
Lantastic 7.0 Single - CD / FD 85/89
Lantastic 7.0 10-user - CD / FD 355/385
Lantastic 7.0 1-user Add On 129
Lantastic 7.0 Starter Kit 2-user - CD+FD 249
Lantastic 7.0 Unlimited User - CD 725
NR-Pro 2000A Combo / 10-pk 85/755
NR-Pro 2000T TP / 10-pk 79/625

ASANTE

*10T Hub 8 Port (8TP+BNC) ..... *(99)*
*10T Hub 12 Port (12TP+1BNC+1AUI) ..... *(149)*
*10T Hub 24 Port ..... *(315)*
*Fast 100BaseTX 12 Port Hub, stackable ..... *(1475)*
*Fast 100BaseTX 12 Port Hub, PnP ..... *(1195)*
*FriendlyNet 5 Port Hub TP ..... *(59)*
FriendlyNet 8 Port Hub TP 65

ASCEND

*P15-1UBRI: ISDN ..... *(249)*
*P25-1U-FX: ISDN Pipeline 25 + 4 Ethernet ..... *(435)*
*P25-1U-PX: ISDN Pipeline 25 + IP Routing ..... *(499)*
*P50-1UBRI: ISDN Pipeline 50 ..... *(535)*
- w. Secure Firewall P50 ..... add 335
*P75-1UBRI: ISDN Pipeline 75 ..... *(625)*
- w. Secure Firewall P75 ..... add 335
*P130-1UBRI-FT1: ISDN ..... *(1199)*
- w. Secure Firewall P130 ..... add 645

Bay Networks

AT2202001: Bay Stack 100BT 12 Port 1595
CG1001E01: Bay Stack 12 Port 599
CG1001E02: Bay Stack 24 Port 975
*CG1001E08: Bay Stack 4 Port + BNC ..... *(85)*
CG1001E09: Bay Stack 8 Port + BNC + AUI 175
Lattislink 2800A: 16TP + 1AUI 559
Lattihub 2803: 16TP + 1AUI, stackable 599
NetGear FE108: 8 Port 100 Hub, non-stackable 375
NetGear FE508: 8 Port Fast 100 Hub 549
NetGear FE516: 16 Port Fast 100 Hub 685

CASTELLE

FaxPress 1500N Ether 1 Line for NW & NT 1995
Office Connect CD Rom Server 569

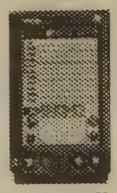
(sale price) ..... SPECIALS, limited to stock on hand
Prices subject to change without notice

http://www.centralcomputer.com for current prices & product catalog

NOTEBOOKS / PALMTOPS / WORKSTATIONS & SERVERS

Notebooks / Palmtops

3COM (US ROBOTICS)



Palm III (80300U) 375
*Palm Pilot Professional 4MB ..... *(259)*
Accessories.
(10101U) Slim Leather Case 25
(10108U) Pen 3-pk 7.99
(10109U) Cradle for Windows 29
(10117U) Belt Crib Case 24
(10264U) Deluxe Leather Case 58

ACER

Extensa 393C: P-166MMX, 16MB, 2.1GB, 20X, 33.6 modem, 12.1" DSTN, Win'95 1199

ASUS

P6300: P-233MMX, 32MB SDRAM, 3GB, 512k, 20X CD, 13.3" TFT, 2MB XGA 2465

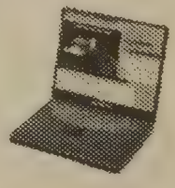
CHEM USA

Chembook 2600: P-200MMX, 32MB, 2.1GB, 14X CD, 12.1" TFT, Win'95, Li-Ion 1749
Chembook 2700: P-233MMX, 32MB, 2.1GB, 20X CD, 14.2" TFT, 4MB Video, Win'95, Li-Ion 2259
Chembook 3300:*32MB, 2.1GB, 20X, 12.1" TFT, Win'95, w. P-166MMX 1495
- w. P-200MMX 1519
- w P-233MMX 1549
Chembook 6000:
- IMM P-266MMX, 32MB SDRAM, 3GB, 20X CD, 13.3" TFT, XGA, Win'95 2735
- PII-266, 48MB, 3GB, 13.1" TFT, Win'95 3059
Chembook 7000:
P-266, 64MB, 4GB, 15" TFT, Win'95 3269
Chembook 9780.
- P-200, 32MB SDRAM, 2.1GB, 20X CD, 12.1" TFT, SVGA, Win'95, Li-Ion 1770
- P-233MMX, 32MB SDRAM, 3GB, 20X CD, 14.1" TFT, XGA, Win'95, Li-Ion 2369

DFI (1 YR ON-SITE WARRANTY)

6600: P-150, 16MB, 1.4GB, 10X CD, 12.1" DSTN, Win'95, Carrying Bag 1399
6620: P-166MMX, 32MB, 2.1GB, 20X CD, 12.1" TFT, Win'95 1629
6700: P-166MMX, 32MB, 2.1GB, 24X CD, 13.3" TFT, Win'95 2179
6700: P-233MMX, 32MB, 2.1GB, 24X CD, 13.3" TFT, Win'95 2269
*8120: P-200MMX, 32MB, 2.1GB, 20X CD, 33.6 modem, 12.1" TFT, Video Capture, Win'95, Li-Ion, Targus Bag ..... *(1825)*
8241: P-200MMX, 32MB, 2.1GB, 20X, 33.6 modem, 14.2" TFT, Win'95, Li-Ion, Targus Bag 2419

DIGITAL EQUIPMENT (DEC)



HiNote VP735:
P-233MMX, 32MB, 4GB, 20X CD, 13.3" TFT, XGS, Win NT 4.0 2829
HiNote VP745:
P-266MMX, 32MB, 4GB, 20X CD, 13.3" TFT, Win'95 (FREE Port Replicator & 3 yr extended warranty, while supplies last) 3085

FUJITSU

Lifebook 635TX:
*Ultra Thin, P-133MMX, 16MB, 2GB, 33.6 modem, 12.1" TFT ..... *(1500)*
Lifebook 675TX:
P-200MMX, 3.2GB, 32MB, 56k modem, 12.1" TFT, Win'95 2979
Lifebook 690TX:
P-266MMX, 32MB, 4GB, 20X CD, 56k modem, 12.1" TFT, Win'95 3979
Lifebook 770TX:
P-200MMX, 32MB, 3.2GB, 20X CD, 56k modem, 12.1" TFT, Win'95 2285
Lifebook 985TX
P-233MMX, 32MB, 5GB, 20X CD, 56k modem, 13.3" TFT, DSVD, Win'95 4179
Lifebook 990TX2: PII-266, 32MB, 5GB, 24X CD, 56k modem, 13.3" TFT, Win'95 4425

HITACHI

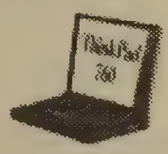
5270:
P-200MMX, 32MB, 2.1GB, 56k modem, 12" DSTN, Win'95 1669
Traveller (#3745):
2.75lbs, P-133MMX, 24MB, 1GB, 8.4" TFT, Win'95, Li-Ion 1695
VisionBook Pro (#7590):
P-266MMX, 48MB, 4GB, 20X CD, 56Kx2 modem, 13.3" TFT, Win'95 3585

HEWLETT PACKARD — Authorized Reseller

NOTEBOOK:
Omnibook 3000CTX (F1392A):
*P-233MMX, 16MB, 4GB, 13.3" TFT, XGA, Win'95, Li-Ion ..... *(2659)*
Omnibook 3000CTX (F1394A):
P-266MMX, 16MB, 4GB, 12.1" TFT, Win'95 2975
Upgrades for 3000CTX:
- 16MB module (F1363A) 79
- 20X CD Rom (F1387A) 249
- Port Replicator (F1381A) 215
- Zip Drive Internal (F1388A) 279
Omnibook 3100 (F1582W):
P-266MMX, 32MB, 4GB, 24X, 13.1" TFT, Win'95 3189
Omnibook 4100 (F1462W):
PII-233, 32MB, 4GB, 24X, 13.3" TFT, Win'95 3550
Omnibook 4100 (F1464W):
PII-266, 32MB, 6.4GB, 24X, 14.1" TFT, Win'95 ... 4975
Omnibook 5700CT (F1352A):
*P-150MMX, 16MB, 2GB, 12.1" TFT ..... *(1579)*
Omnibook 5700CT (F1353A):
*P-166MMX, 16MB, 2GB, 12.1" TFT ..... *(1825)*
Sojourn (F1340A):
P-233MMX, 64MB, 2.1GB, 20X, 12.1" TFT, W'95 5839

PALMTOP:
*320LX (F1221A) 640x240, 4MB ..... *(295)*
Accessories.
- (F1218A) AC Adapter 29.99
- (F1223A) Synch Cable 16
- (F1224A) Spare Cable 32
- (F1225A) Stylus 12
- (F1227A) Leather Case 68
- 2MB CF Card / w. Adapter 79/99
- 4MB CF Card / w. Adapter 119/149
*360LX (F1238A) 8MB ..... *(595)*
620LX (F1250A) Color 795
Windows CE Upgrade Kit (F1239A) 125

IBM



TP380ED (#2635-6AU):
P-166MMX, 16MB, 3GB, 8X, 12.1" TFT, Win'95 2189
TP380XD.
P-266MMX, 32MB, 5.1GB, 24X, 12.1" TFT, Win'95 2935
TP560:
*P-133, 8MB, 2.1GB, 11.3" DSTN, Win'95, Case *(1499)*
TP560E (#2640-40U):
P-166MMX, 16MB, 2.1GB, 12.1" TFT, Win'95 1965
TP560X (#2640-70U):
P-233MMX, 32MB, 4GB, 12.1" TFT 3125
TP600 (#264541U):
PII-233, 32MB, 3.2GB, 24X, 56Kx2, 13" TFT 3959
TP600 (#264551U):
PII-266, 32MB, 4GB, 24X, 56Kx2, 13" TFT 4549
TP770 (#9548-40U):
P-200MMX, 32MB, 3.2GB, 13.3" TFT, XGA, Win'95 . 2895
TP770 (#95491AU):
P-233MMX, 32MB, 5.1GB, 14.1" TFT, Win'95 4159
TP770E (#954851U):
PII-266, 32MB, 5.1GB, 14.1" TFT, Win'95 4379

PSION

Palmtop Series 5 4MB 425
Palmtop Series 5 8MB 489

SCEPTRE

S4500: P-166MMX, 16MB, 2GB, 12X CD, 33.6 modem, 12.1" TFT, Li-Ion 1435
S5500: MMO Tillamook P-233MMX, 32MB, 3GB, 20X CD, 13.3" TFT 2559

SHARP

Mobileon HC4500C
Palmtop, Color, 16MB, 33.6 modem 949
Accessories (for HC4500C):
- Digital Camera 309
- Docking Station 125
PC-M100: P-200MMX, 32MB, 2.1GB, 56k modem, 12.1" TFT, Win'95 2250

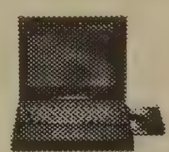
TATUNG

TNB-5600: P-166MMX, 32MB, 1.4GB, 33.6 modem, 12.1" TFT, Win'95, Li-Ion 1729

TOSHIBA

Libretto 70CT:
P-120, 16MB, 1.58GB, 6.1" TFT, Win'95, Li-Ion 1669
Libretto 100CT:
P-166MMX, 32MB, 2.1GB, 7.1" TFT, Win'95 2430
Portege 300CT:
P-133MMX, 32MB, 4GB, 10X CD, 33.6 modem, 10.4" TFT, Win'95 1499
- Multimedia Port Replicator (for 300CT) 425
Portege 320CT:
P-266MMX, 32MB, 4GB, K56 modem, 10.4" TFT, Win'95 3275
Satellite 320CDT:
P-233, 32MB, 4GB, 20X, K56 modem, 12.1" TFT, Li-Ion, Win'95 2465
Satellite Pro 480CDT:
P-233MMX, 32MB, 3.8GB, 10X CD, 33.6 modem, 12.1" TFT, Win'95 2729
Satellite Pro 490CDT:
PII-233, 32MB, 4GB, 20X CD, K56 modem, 12.1" TFT, Win'95 3525
Satellite Pro 490XCDT:
PII-266, 32MB, 4GB, 20X CD, K56 modem, 13.3" TFT, Win'95 3969
Tecra 520CDT:
*P-166MMX, 32MB, 2GB, 10X CD, modem, 12.1" TFT, Win'95 ..... *(2256)*
Tecra 550CDT:
P-266MMX, 32MB, 3.82GB, 20X CD, K56 modem, 12.1" TFT, XGA, Win'95 3925
Tecra 780CDM:
PII-266, 64MB, 5GB, Camera, 20X CD, K56 modem, 13.3" TFT 5099
Tecra 780DVD:
PII-266, 64MB, 5GB, Camera, DVD, K56 modem, 13.3" TFT 5499

TWINHEAD



Slimnote 9T166CZ:
P-166MMX, 16MB, 2.1GB, 20X CD, 12.1" DSTN, Win'95, Ni-MH 1395
Upgrades:
- 16MB RAM 69
Slimnote 9T166TH:
P-166MMX, 32MB, 2.1GB, 20X CD, 12.1" TFT, XGA, Win'95, NiMH 1849
Slimnote 9TE200TZ:
P-200MMX, 32MB, 2.1GB, 20X CD, 12.1" TFT, Win'95, Li-Ion 1649
Slimnote EX200TG:
P-200, 32MB, 3GB, 20X CD, 1024x768, 13.3" TFT, 4MB VGA, Win'95, Li-Ion 2219
Slimnote EX233TG:
P-233, 32MB, 3GB, 20X CD, 1024x768, 13.3" TFT, 4MB VGA, Win'95, Li-Ion 2345
Slimnote EX266TG:
P-266MMX, 32MB, 3GB, 20X CD, 13.3" TFT, Win'95, Li-Ion 2489
Slimnote XL200TK:
P-200, 32MB, 3GB, 20X CD, 14.2" TFT, XGA, Win'95 2385
Slimnote XL233TK:
P-233, 32MB, 3GB, 20X CD, 14.2" TFT, XGA, Win'95 2479
Slimnote XL266TK.
P-266MMX, 32MB, 3GB, 20X CD, 14.2" TFT, Win'95, Li-Ion 2649

OTHERS

Kensington: Deluxe Carrying Case 28.95
Kensington: Desktop MicroSaver 19.95
*Kensington: MicroSaver for notebook ..... *(35.95)*
*Kensington: Saddle Bag ..... *(59.95)*
Pacific Oversea: SB-510 Black Leather Case 13" 39
Pacific Oversea: SB-3302 Standard Leather Bag 55
*Targus: Notepad Plus (CNP-1) ..... *(39.95)*
Targus: Palmtop Leather Case (CH500) 49
Targus: Palm Pilot Case (CH050) 19.95

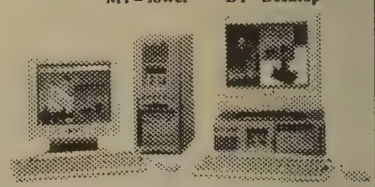
Workstations / Servers

DIGITAL

PC-3500:
- PII-266, 32MB, 3.2GB, 32X, Tower, Win NT 1519
- PII-300, 32MB, 4GB, 32X, Tower, Win'95 1719

HEWLETT PACKARD

• MT=Tower •DT=Desktop



Brio 8377/MT (D5833A): PII-266, 32MB, 8GB, 32X CD, USR 56k modem, Win'95 1745
Brio/MT (D5834A): PII-333, 64MB, 8GB, 32X CD, 56k modem, Win'95 2115
Brio/MT (D5845A): PII-233, 32MB, 4GB, 24X CD, 56k modem, Win'95 1519
Brio/MT (D6513A): PII-300, 32MB, 8GB, 32X CD, Win'95 1649
Brio 8334/MT (D6662T): Celeron 266, 32MB, 4GB, 24X CD, Win'95 1149
Kayak XA/MT (D4806N): PII-233, 32MB, 2.5GB, 24X CD, 10/100BT, Win NT 4.0 1669
Kayak XA/MT (D4808T): PII-266, 32MB, 4.3GB, 24X CD, 10/100BT, Win NT 4.0 1729
Kayak XA/MT (D6419T): PII-300, 64MB, 6GB, 24X CD, 10/100 NIC, Win NT 2019
Vectra VE4 (D5609T): P-200MMX, 32MB, 3.2GB, 24X CD, Win'95 1279
Vectra VE4 (D5619T): P-233MMX, 32MB, 3.2GB, 24X CD, Win'95 1389
Vectra VL7 (D5726T): PII-266, 32MB, 4.3GB, 24X CD, Win'95 1419
Vectra VL7 (D5739T): PII-333, 64MB, 6.4GB, 24X CD, Win NT 2199

NETSERVERS:
E45/MT (D4974A): PII-233, 32MB, 512k, 4.2GB SCSI, 24X CD, 10/100 NIC 1839
E50/MT (D6033A): PII-300, 64MB, 4.2GB UW-SCSI, 24X CD, 10/100 NIC 2149
LH-II (D5974A): PII-266, 64MB, 3x 4.2GB 6369

HITACHI

VisionDESK (#1120) - all-in-1 LCD Desktop:
P-233MMX, 32MB, 4.3GB, 20X CD, 56Kx2 modem, 13.3" TFT, 10/100BT, Win'95 2479

IBM

IntelliStation MPro2D-22U: PII-333, 64MB, 6.4GB, 24X CD, 10/100BT, Win NT 3329
IntelliStation MPro3D-24U: PII-333, 128MB, 9.1GB UW-SCSI, 24X CD, 10/100 NIC, Win NT 5949
PC300GL:
- PII-266, 32MB, 4.2GB, 32X, Desktop, Win'95 1479
- PII-333, 64MB, 4.2GB, 32X, Tower, Win NT 1935
PC300PL-50U: P-233MMX, 32MB, 4.3GB, 24X CD, Win NT 1425

SERVERS (w/o OS):
325-PTW: PII-233, 32MB, 4.5GB UW-SCSI 3285
330-PBO: PII-266, 64MB, 9.1GB UW-SCSI 4950

TOSHIBA

• D=Desktop • M=Tower

Equium 6230D: PII-233, 32MB, 3GB, 24X CD, Win NT, 10/100 NIC 1599
Equium 7000D (PV1044U-844F):
PII-300, 32MB, 4GB, 24X, Win NT, NIC 1565
Equium 7000S (PV1043U-2680):
PII-233, 32MB, 3GB, 24X, Win'95 1269
Equium 7000S (PV1043U-9365):
PII-266, 32MB, 4GB, 24X, NIC, Win NT 1469
Equium 7100S (PV1045U-32P00):
PII-350, 64MB, 6GB, 32X, NIC, Win NT 2469
Equium 7100S (PV1045U-FCP00):
PII-400, 128MB, 8GB, 32X, NIC, Win NT 3075

NO Returns. Only Satisfaction Warranty from Manufacturers.

**(sale price) ... SPECIALS, limited to stock on hand*
Prices subject to change without notice.

http://www.centralcomputer.com for current prices & product catalog

Office Connect Ether 2P Printer Server ..... *(299)
Office Connect Ether 1 Line Fax Server 1195

CHEYENNE
Arc Serve 6.1 for Netware Enterprise 1095
Arc Serve 6.5 for Win NT 4.0 Single Server 415
Arc Serve 6.5 for Win NT 4.0 Enterprise 739
Arc Serve 6.5 for Win NT Workstation 99
Arc Serve for MAC - 5 / 20-user 159/309
Arc Solo Backup software for Dos / Win 119/118
Fax Server NLM 5.0:
- 5 / 10 / 25-user 355/639/999
Innocular for Netware Server 4.0 Unlimited ..... *(495)
Innocular for Win'95 (Anti-Virus) 45
Innocular for Win NT Server 575
Innocular for Win NT add-on Arc Serve ..... *(279)
Innocular for Win NT Workstation Client 46

CISCO SYSTEMS
1528: Microhub 8 Port 10/100 479
CPA-762 ISDN BRI w. NT1 525
CPA-1604 Bridge w. NT1 1295
CPA-2501 Router 1 Ethernet 2 Serial 1695
Catalyst WS-C1900: 24TP, 2BTX ..... *(1399)

CNET
2000E+ ISA Combo PnP 27
8800TPC Hub (8TP + BNC) ..... *(65)
8816TPC Hub (16TP + BNC) ..... *(125)

DANPEX
2000PNP ISA Combo ..... *(17)
2900PT PCI RJ45 ..... *(15)
2900P2 PCI Combo ..... *(18)
3270 Emulation for PC / PS/2 ..... 175/195
5250 Emulation for PC / PS/2 ..... 199/235
6200P2 PCMCIA (type II), BNC + TP ..... *(59)
9400P3 32-bit Combo PCI (DEC, full duplex) ..... *(45)
EN-500 5 Port Hub TP ..... *(39)
EN-1600 16 Port Hub R.M. ..... *(99)
EN-3200 32 Port Hub R.M. 255
ER-200 2 Port Repeater Coax 159
ER-400 4 Port Repeater Coax 249
ET-109 Converter (10BaseT to BaseFL) 169
ET-509 Translator (UTP to BNC) 109
ET-510 Translator (UTP to AUI) 107
FE-1439TX PCI 10/100BaseTX ..... *(28)
Fast Ethernet Starter Kit (Fast 4 Port Hub + 2 PCI 100TX + 2 Cable cat. 5 TP 15') ..... *(165)

HEWLETT PACKARD
J1120AA Network Node Manager for NT 3345
J2550B Jet Direct TP 279
J2552B Jet Direct Combo 345
J2556B Jet Direct 10/100 Combo ..... *(385)
J2573A 10/100 VG Selectable ISA 169
J2585A 10/100 VG Selectable PCI 135
J2590A Jet DirectEX Plus 3 for 100VG 549
J2594A Jet DirectEX Plus Combo ..... *(235)
J2592A Jet Direct 150X TPO 165
J2593A Jet DirectEX Plus 3 Combo 325
J2610B Advanced Stack 8 Port Hub 245
J3110A Jet Direct TP for 4000 235
J3111A Jet Direct Combo for 4000 279
J3113A Jet Direct 10/100 for 4000 315
J3128A Advanced Ethernet 8E Hub 135
J3175A AdvanceStack Switch 208T 779
J3200A AdvanceStack Switching 12 Port 425
J3201A (J3200A) + SMNP (J3210A) ..... *(499)
J3202A AdvanceStack Switching 24 Port 825
J3203A (J3202A) + SMNP (J3210A) ..... *(799)
J3245A Advancestack Switch 800T 1515

IBM
Token Ring 16/4 Turbo ISA (72H3482) 245
Token Ring PCMCIA 16/4 Auto 325

intel
SALE

EE110TX 8 Port Fast Hub, non-stackable 459
EE110TX 12 Port 10/100 Dual Speed Hub ..... *(805)
EE110TX 24 Port Dual Speed Hub ..... *(1069)
EILA 8265 Pro/100 for EISA ..... *(199)
ES101-TX Switching Hub 10/100 ..... *(2099)
EtherExpress Pro/10 Cards:
- *PCLA 8210 BNC+TP oem / reg / 5-pk* ... *(65/95/325)
- *PCLA 8220 TP / 5-pk* ..... *(89/315)
- PCLA 8205 Flash BNC+AUI+TP 135
- PCLA 8215 Flash BNC+TP 125
In-Business 8 Port Hub 85
LANdesk Server Manager Pro (LDSMV251) 1185
LANdesk Virus Protect 4.0 945
LANdesk Workgroup Manager 25 Node 559
MIBLA 1600 PCMCIA 10/100 ..... *(149)
PCLA 2451 Netport Express Pro/100 Ext, 3 Port 375
PCLA 3151 Netport Express Pro Int 295
PCLA 4451 Netport Express Pro/100 Ext, 1 Port 275
PILA 8460 Pro/100+ / 5-pk ..... *(59)/359
PILA 8480 Pro/100 Server Adapter 485

KEY 96 (WIRELESS LAN)
Access Point (500ft - 1000ft) + Lan Card 1150
PCMCIA Wireless LAN Card 339
RIS-100 PC Card Adapter 29

KINGSTON
Etherx 10BT PC Card 95
Etherx 10/100 Fast PCI 59

LANPRO
SALE

EN2000PXA Full Duplex Combo PnP ..... *(18)
EN5200PX PCI Combo ..... *(19)
EN9130TX 10/100TX PCI Card ..... *(29)
ER1204TX Fast HUB 4 Port 95
ER1208TX Fast HUB 8 Port 179
Fast 100 Hub 5 Port Stackable ..... *(225)
Fast 100 Hub 8 Port Desktop / Stackable ..... *(335/425)
Fast 100 Hub 12 Port ..... *(599)
Hub 5 Port (5TP) ..... *(49)
Hub 8 Port (8TP+BNC) ..... *(59)
Hub 16 Port (17TP+2AUI+2BNC) ..... *(145)
PS1000A Print Server Single Port 119

LINKSYS
10 Port Switch (2 Fast + 8TP) 545
Ether Fast 10/100 PCI Card 39
Ether Fast 10/100 PCMCIA 109
Fast 100TX 4 Port Hub Stackable ..... *(125)
Fast 100TX 5 Port Hub 99
Fast 100TX 8 Port Hub / Stackpro 179/289
Fast 100TX 16 Port Hub Stackpro 575
Fast Switch 10/100TX 2 Port 189

MEGAHERTZ
3CCFEM556 56k modem + 10/100BT 319
3CXEM556T 56k modem + 10BT 275
XJ10BC PCMCIA Ethernet Combo ..... *(135)
XJ10BT PCMCIA Ethernet TP ..... *(115)

MICRODYNE
EH800E 8 Port Hub ..... *(119)
EH1200E 12 Port Hub ..... *(175)
NE 10/100 PCI ..... *(99)
NE2500 ISA Combo PnP ..... *(19)
NE5500 32-bit Combo PCI ..... *(109)

MIROTEST
CD-Now for Netware - 25 / 50-user 489/695
Disc View Pro 265
Disc Serv (includes Disc View) 529

NOVELL
Intra Netware 4.11:
- *5 / 10 / 25-user* ..... *(695/1295/2095)
- 50 / 100 / 250-user 2895/3995/7295
- 500 / 1000-user 15995/30995
Intra Netware 4.11 Addition 10-user 895
Intra Netware for Small Business:
- Server + 5 License 659
- 1 / 5-user License 59/225
Lan Workplace 5.0 - Single / 10-user 195/1295
Netware Connect - 2 / 8 / 32-Ports 355/1375/3895
Netware Management Agents 2.1 415
Netware NFS v4.2C ..... *(1850)
Netware NFS Service 2.1 2195
NFS Client for Lan Workplace 205

SHIVA
LanRover/2E Plus 3.5 Async TP v.34 1695
NetModem/E 28.8 Ether BNC + TP 1295

SMC
SALE

Ether EZ TP ISA (8416T) oem ..... *(58)
Elite Ultra 32 EISA Combo ..... *(195)
Etherpower PCI Combo (8432BT) oem ..... *(75)
Etherpower II 10/100 (9432TX) oem / 5-pk *(65)/335
EZ Hub 100TX 8 Port 635
Tiger Hub 100TX 12 Port 1195
Tiger Hub 3212TC (12TP+BNC+AUI) 349
Tiger Hub 3314T 14 Port ..... *(399)

WISECOM (5 YR WARRANTY)
H008CAT 8 Port Hub (8TP+AUI+BNC) ..... *(64)
H116CAT 16 Port (16TP+AUI+BNC) ..... *(139)
R310CT PCI 32-bit Combo PnP ..... *(19.95)
U210T NE2000 ISA Combo PnP 16

Xircom
CE3-10BC PCMCIA Combo 159
CE3-10BT TP, upgradable 135
CE3B-100BTX 10/100 PCMCIA 155
CEM33-BC 33.6 modem + LAN Combo ..... *(299)
CEM33-BT 33.6 modem + LAN TP ..... *(255)
CEM56-100BTX 56k modem + Fast LAN ..... *(299)
CEM56-100MD: with Mini Dock ..... *(305)
PE3-10BC Pocket Adapter Combo ..... *(279)
PE3-10BT Pocket Adapter TP ..... *(259)
REM56G-100BTX Realport 10/100 + 56k PCMCIA . 339.95

CABLES & ACCESSORIES:
10BaseT, Cat. 3 plenum 1000' 145
Belden 8259, RG58 1000' 135
RG58 U - 500' / 1000' 49/79
RG58 A/U - 500' / 1000' 59/99
Twisted Pair 2-pair, PVC, Cat. 3 - 500' / 1000' 25/45
Twisted Pair 4-pair, PVC, Cat. 3
- 200' / 500' / 1000' 25/45/69
Twisted Pair 4-pair, PVC, Cat. 5
- 200' / 500' / 1000' 30/59/95

Custom-made Cables, Cross-Overs ..... Call

15. POWER SUPPLIES

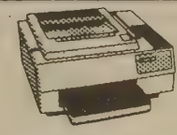
APC
BF-250 Back-UPS Office Kit ..... *(99) 115
BK-280 Back-UPS (200W), 2 out 99
BK-500M Back-UPS (330W), 2 out 155
BK-600 Back-UPS (425W), 4 out 225
BK-650M Back-UPS (400W), 3 out 199
BP-280 Back-UPS Pro PnP, 2 out 139
BP-420 Back-UPS Pro PnP, 4 out 225
BP-650S Back-UPS Pro, 3 out 279
BP-1000 Back-UPS Pro (670W), 6 out 375
ShareUPS AP9207 235
SU-420 Net 235
SU-620 Net, 4 out 285
SU-700 Smart-Net (486, 586, FS), 4 out 365
SU-1000 Smart-Net (FS, WS), 6 out 475
SU-1400 Smart-Net (950W), 6 out 625
SU-2200 Smart-Net (1600W), 8 out 899
SU-3000 Smart-Net (2250W), 8 out 1645
SU-1000 RM Net / SU-1000XL Net 575/599
SU-1400 RM Net 739
SU-2200 RM 3U / SU-2200XL Net 1235/1195
SU-3000 RM 3U 1799
Powerchute Plus:
- for Novell 65
- for OS/2, LAN Server, 3Com 75
- for Unix / Xenix 99
- for Win & Win'95 / Win NT 55/69
Surge Arrest (PER 7) 17.99
Surge Arrest w. TEL (PER 7T) 22.99
Surge Network Strip (NET 7) 29.95
Surge Network Strip (NET 7T) 39.95
Surge Protector (P7) 9.99
Surge Station Net 8 / 8N 36/48
Surge Station Pro 8 / 8T2 / 8TV 32/39/49

PC POWER COOLING
CPUcool for Pentium® Pro (3.2") 20.95
CPUcool K1 for Pentium® II up to 450MHz 19.95
CPUcool Z1 for P-233 to P-333 (socket 7) 19.50
Silencer 230 Slim for Baby or Mid Tower 69
Silencer 230 for Full Tower 79
Silencer 270 for Full Tower 115
Silencer 270 Slim for Baby or Mid Tower 108
Silencer 235 ATX 84
Silencer 275 ATX 124
Turbo Cool 300 ATX 126
Turbo Cool 300 for Full Tower 116
Turbo Cool 300 Slim for Baby or Mid Tower 109
Turbo Cool 400 ATX 189
Turbo Cool 400 Slim / for Full Tower ..... *(169/176)
Turbo Cool 600 for Full Tower 335
Two-in-1 500 (slim, redundant) 199
Twinpower 800 for ATX (redundant) 695

OTHERS
250W for ATX 39
250W for Baby or Mid Tower, PS/2 35
300W UL for Full Tower, PS/2 45
300W for ATX UL 75
Kensington Compact Power Center (220 Joules) 49
Kensington Masterpiece Plus Control Center 89
Kensington Masterpiece Power Office Center 75
Kensington SmartSockets Basic Strip, 370 Joules 14.99
Kensington SmartSockets Premium, 520 Joules .. 22.99

ACCESSORIES:
Battery Tester M-032 ..... 6.50
DMM: DT-890B (A,V,O,C,Hfe) 19.95
DMM: DT-830B (Adc,V,O,Hfe) pocket size 8.95
DMM: M-3900 (A,V,O,Hfe) big LCD 17.95
DMM: KT-7113 (A,V,O,C,Hfe) auto ranging 24.95
DMM: KT-7244 (A,V,O,F,Hfe) 21.95
DMM: ST-5308 (Adc,V,O,Hfe) battery test 11.95
Engine Tester KT-7181 (Dwell, Tacho) 18.95
Pocket Meter MF-133, 5 functions 6.95
Power Center Switching Systems 13.50
Test Probe / Tool Kit 1.99/7.95

16. PRINTERS & PLOTTERS



AVERY (ACCESSORIES)
#3110 Kids Rectangle Stickers 4.99
#3111 Kids Square Stickers 4.99
#3112 Kids Small Round Stickers 4.99
#3113 Kids Big Round Stickers 4.99
#3114 Kids Full Page Stickers 4.99
#3265 Greeting Cards Half-Fold 6.95
#3610 Kids Greeting Cards 5.45
#3611 Kids Post Cards 5.45
#3613 Kids Laminated I.D. Cards 5.95
#5610 Laser Printer Label 100pk (1"x2.6") 22.95
#5163 Laser Printer Label 100pk (2"x4") 23.95
#5267 Laser Printer Label (0.5"x1.75") 8.95
#8162 Inkjet White Address Label (1.33"x4") 4.79
#8167 Inkjet Return Address Label (0.5"x1.75") .. 4.75
#28371 Inkjet White Business Cards 10pk 4.69

BROTHER
HL-730DX True 600dpi, 6ppm, Laser 365
MFC-4550 5-in-1, 600dpi, Laser, Fax 699
MFC-6550 6-in-1, Fax/ Copy/ Scan/ Print etc. 969
MFC-7000FC 6-in-1 Fax/ Copy/ Scan etc. 979

Canon
BJC-80 Color 285
BJC-250 Color 159
BJC-4300 Inkjet, Color 199
BJC-4550 720x360dpi, 5ppm, 11"x17" 475
BJC-7004 Color 335

EPSON
FX-880 9-pin 295
FX-2170 9-pin, Wide, max. 6 copies 449
LQ-570+ 24-pin 259
LQ-870 24-pin, Par 455
LQ-2070 24-pin, Wide ..... *(389)
LQ-2170 24-pin, Wide 549
Stylus 400 Color, 720dpi, 3ppm ..... *(185)
Stylus 600 Color, 720x1440dpi, 6ppm ..... *(239)
Stylus 800 Color, 720x1440dpi, 8ppm ..... *(299)
Stylus 800N w. Ethernet Card ..... *(499)
Stylus 850 Color, 1440x720dpi 365
Stylus 1520 Color, 1440x720dpi, fit 17"x22" 759
Stylus 3000 Color, 1440x720dpi, fit 13"x19" 1699
Stylus Photo (C209011), 720dpi ..... *(355)
Stylus Photo 700 Color, fit 8.5"x44" 275
Stylus PhotoEX fit 11"x44" 479

Accessories:
(C823121) Local Talk for Stylus 145
(C823572) Multi-Ethernet for LQ & Stylus 325
Epson Ink Cartridges:
Black Ink for II & IIS (SO20047) 19.95
Black Ink for 400/ 500/ 600/ Photo 19.45
Black Ink for 400/ 800+ (SO20025) 10.95
Black Ink for 800 Color/ 1520 Color (SO20108) .. 22.45
Color Ink for II & IIS (SO20049) 29.95
Color Ink for 400/ 600/ 800/ 1520 ..... 22.95
Color Ink for Stylus Photo (SO20110) 19.95
Epson Paper:
Banner Kit for 1520 (C811011) 31.95
Banner Paper for 1500 (SO41102) 25.95
- Banner Paper Holder for 1500 (C811003) 24
Coated Letter Paper 720dpi (SO41062), 100 sheet 12.95
High Quality Glossy Paper (SO41072), 15 sheet . 24.95
High Quality Inkjet Letter (SO41111), 100 sheet . 8.95
Iron-On Paper (SE41001), 10 sheet 12.95
Photo Quality, 4x6, (SO41134), 20 sheet 7.45
Photo Quality, 11x17 (SO41070), 100 sheet 26.95
Photo Quality Glossy (SO41124), 20 sheet 10.95
Photo Quality Glossy 11x17 (SO41075), 10 sheet 38.95
Photo Quality Glossy 13x19 (SO41074), 10 sheet 49.95
Photo Quality Legal (SO41067), 100 sheet 17.45

HEWLETT PACKARD
Color Laser Jet 5 (C3961A) 3875
Color Laser Jet 5M (C3962A) 4945
Deskjet 670C (C5884A) 208
Deskjet 692C 245
Deskjet 720C 289
Deskjet 890CXi 379
Deskjet 1000CXi (C2673A), fit 4x6 - 11x17 415
Deskjet 1600C for PC & MAC 1279
Deskjet 1600CM Postscript for PC & MAC 1869
Laser Jet 4MV (B size) 2595
Laser Jet 5 / 5M / 5N 999/1525/1285
Laser Jet 6LXi ..... *(377)
Laser Jet 6PXi / 6MP 745/879
Laser Jet 3100Xi (C4177A) All-in-1 679
Laser Jet 4000 (C4118A), 2 trays 1099

(sale price) ..... SPECIALS, limited to stock on hand
Prices subject to change without notice

http://www.centralcomputer.com for current prices & product catalog

Laser Jet 4000N (C4120A) JetDirect 1415
*Laser Jet 4000T (C4119A), 3 trays ..... *(1195)*
Laser Jet 4000TN (C4121A) JetDirect 1545
Laser Jet 5000 (C4110A), print size 11"x17" 1445
Laser Jet 5000N (C4111A), print size 11"x17" 1995
Mopier 5Si (C4176A) / w. Bundle 4445/6545
Office Jet 590 (C4645A) 4-in-1 399
Office Jet 630 (C5315A) 4-in-1 519
Office Jet Pro 1150C Color (C5300A) 759
Portable 340 (C2655A) 265
Portable 340CV 315

HP PLOTTERS:

Design Jet 430: D Size (C4713A) 1675
Design Jet 430: E Size (C4714A) 2495
Design Jet 450C D Size (C4715A) 1995
Design Jet 450C E Size (C4716A) 2895
Design Jet 750C+ . D Size / E Size 4995/5695
Design Jet 755CM: E Size 8195
Design Jet 2000CP E Size (C4703A) 8295
Design Jet 2500CP E Size (C4704A), Ethernet 9995

Accessories:

C3169A: Postscript for 5Si 435
C3760A: Lower Cassette for 4V/ 4MV 325
C3762A: Duplex for 5Si/ 5SiMX 479
C3765A: Envelope Feeder for 5Si 379
C3918A: Postscript for 5/ 5N 335
C3920A: Duplex for 5/ 5N/ 5M 475
C3921A: 500 Sheet Feeder for 5 225
C3927A: Power Envelope Feeder for 5 259
C4123A: Duplex for 4000 289
C4137A: 16MB for 4000 145

HP Ink Cartridges:

51625A: Color for 500C/ 550C/ 560C 26.95
51626A: Black for 500/ 540/ 560 ..... 24.45
51629A: Black for 590/ 600/ 660 ..... 24.95
51640A: Black for 1200C 23.95
51640C: Cyan for 1200C 27.95
51640M: Magenta for 1200C 27.95
51640Y: Yellow for 1200C 27.95
51641A: Color for 870C/ 855C/ 1600C 28.95
51645A: Black for 870C/ 855C/ 1600C 26.95
51649A: Color for 590/ 660C 29.25
C3102A: Cyan for Color Laser Jet 32.95
C3103A: Yellow for Color Laser Jet 32.95
C3104A: Magenta for Color Laser Jet 32.95
C3105A: Black for Color Laser Jet 7.95

HP Paper:

92296T: Transparency Film for Laser Jet, Letter .. 17.95
C1812A: Greeting Card, Letter, 20 sheet 7.95
C1846A: Photo Paper, Letter, 20 sheet 9.95
C2974A: Glossy, Letter, for 5/ 5M, 50 sheet 39.95
C3850A: Opaque Bond, 36"x150' roll 24.95
C3877A: Coated Paper, 36"x150' roll 39.95
C5973A: Premium Glossy, Letter, 25 sheet 21.95
C5976A: Bright White Inkjet, Letter, 200 sheet 5.95
C6093A: Premium Photo 4"x5", 15 sheet 8.50

HP Toner Cartridges:

92274A: for 4L/ 4ML/ 4P 65
92275A: for IIP/ IIP+/ IIIP 74
92291A: for IIISi/ 4Si/ 4SiMX 129
92295A: for II/ IID/ IIV/ IIID 75
92298A: for 4/ 4M/ 4+/ 4M+/ 5/ 5M/ 5N 89
C3900A: for 4V/ 4MV 139
C3903A: for 5P/ 5MP/ 6P/ 6MP 75
C3906A: for 5L/ 5ML/ 6L 59
C3909A: for 5Si/ 5SiMX 179
C4127A: for 4000 ..... 79.95

LEXMARK

Optra C Color, 600dpi, Postscript, 8MB, 3ppm 4495
Optra E 600dpi, 1MB, 6ppm 395
Optra S1250 1200dpi, 4MB, 12ppm 1045
*- with LAN (S1250N) ..... *(1245) 1299*
Optra S1650 1200dpi, 4MB, 16ppm 1295
- with LAN (S1650N) 1545
Optra S2450 1200dpi, 4MB, 24ppm, fits 11x17 ... 2295
- with LAN (S2450N) 2595

NEC

SALE

*Superscript 660+ Laser ($30 Rebate) ..... *(249)*
*Superscript 750C Color ($30 Rebate) ..... *(189)*
*Superscript 860 Laser ($50 Rebate) ..... *(389)*
*Superscript 1260 Laser, 600dpi, 12ppm ..... *(645)*

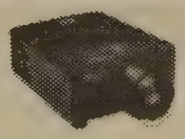
OKIDATA

ML184T 9-pin, Par, 300cps, max. 5 copies 235
*ML320T 9-pin, 290cps, max. 5 copies ..... *(315)*
ML390T 24-pin, 312cps, for Win & Win 32 345
*ML520 9-pin, 430cps ..... *(385)*
ML590 24-pin, 450cps, max. 5 copies 449
ML591 24-pin, Wide, max. 5 copies 625
*Office 44 4-in-1 ..... *(485)*
OkiJet 2020 600dpi 185
*OkiPage 4W Laser, 4ppm ..... *(199)*
*OkiPage 6E 600dpi, 6ppm ..... *(289)*
*OkiPage 6EX 600dpi, 2MB, 6ppm ..... *(399)*
OkiPage 16N Laser, 600dpi, 16ppm 889
*OL600E Laser, 600dpi, 6ppm ..... *(295)*
*OL810E Laser, 600x1200dpi, 8ppm ..... *(565)*
*OL1200 Laser, 600dpi, 2MB, 12ppm ..... *(949)*

SEIKO

Smart Label Printer EZ30 145
Smart Label Printer Pro SLP220 235

17. PROJECTOR



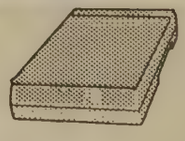
3M

Overhead M9100 AJB 289
Overhead M9200 AJC 399
Overhead M9550 AJH 615
Overhead M9700 AJJ 499

PROXIMA

Desktop DP5100 LCD 3499
Desktop DP5500 LCD 640x480, Zoom 4599
Ovation 810 8.4" LCD, 2M color, 640x480 1665
Ovation 944 10.4" LCD, 16.7M, 1280x1024 6395
Ovation+ 840 8.4" LCD, 16.7M, 800x600 2195
Ovation+ 846 10.4" LCD, 16.7M, 800x600 2695
Portable Overhead A653 3000 Lumens 475
Portable Overhead A655 4000 Lumens 799

18. SCANNER



ARTEC

AS6E 30-bit 300x600dpi Parallel w. Photo Deluxe 89

EPSON

*Expression 636 36-bit Executive SCSI ..... *(699) 725*

HEWLETT PACKARD

ScanJet 5100CXi (C5193A) 285
*ScanJet 6100 (C6267A) ..... *(699) 745*
*- Auto Document Feeder (C6265A) ..... *(455)*
- Transparency (C6261A) 599
*ScanJet Office 4P + ADF (C1135A) ..... *(595)*
ScanJet Personal 5S 195

LEO

LeoPlus L3 Parallel Flatbed 95

MICROTEK

*Scan Maker III w. TMA & Photoshop OCR ..... *(1399)*
Scan Maker V310 30-bit Parallel ($30 Rebate) 145
Scan Maker V600 30-bit Parallel ($60 Rebate) 245
Scan Maker X6 Parallel 189
Slide Maker 35T+ 1800dpi, 16.8M color 725
Auto Document Feeder ADF600 365
Color Pagewiz for Win, 24-bit 159
Transparency Adapter for E3 / E6 ..... 285/285

STORM TECH

*Easy Photo Reader Parallel ..... *(115)*
*Easy Photo Smart Page ..... *(149)*

UMAX

*Astra 610P Win ($30 Rebate) ..... *(119)*
*Astra 610S w. Photo Deluxe ($20 Rebate) ..... *(149)*
*Astra 1200S Win Deluxe ..... *(249)*
Astra 1220P Parallel w. Photo Deluxe ($20 Rebate) 205
Astra 1220S SCSI w. Photo Deluxe 225

VISIONEER

Paperport Strobe Parallel ($50 Rebate) 175
Paperport Deluxe for Win 32 (software) 69.95

19. TAPE BACKUP

AIWA

GD-B8000 8GB DDS-2 4mm SCSI Int 649
TD-S3200 TR-3 3.2GB Int 125

EXABYTE

*Eagle TR3 603003-004 3.2GB Int ..... *(145)*
EXB-8700LT 8mm 5-10GB Ext Drive 675
- with Arc Serve 899
Eliant 820S 8mm 7-14GB, Single Ended Int 1525
Eliant 820S 8mm 7-14GB, Single Ended Ext 1775
Mammoth 8900SL 8mm 20-40GB Int / Ext 2995/3245
210RK Automated 8mm Library (70-140GB) 6095

HEWLETT PACKARD

*C1534 4mm Dat. 2GB SCSI Int Drive ..... *(435)*
- w. Int Kit (C1525) / Ext Kit (C1520) 725/845
*C1536 4mm Dat. 2-4GB SCSI Int Drive ..... *(465)*
- w. Int Kit (C1526) / Ext Kit (C1521) 769/895
C1549A Surestore DLT 30GB Ext 3095
C1554 Dat. 24GB DDS-3 Int 965
- w. Int Kit (C1555) / Ext Kit (C1556) 1399/1545
C1599 Dat. 8GB DDS-2 Int 695
- w. Int Kit (C1528) / Ext Kit (C1529) ..... *(875)/1095
C4354A Colorado 5GB Int 215
C4361A Colorado 5GB Ext 255
C5644C Surestore T4i 4GB Int 359
C5645B Surestore T4e 4GB Ext 459
C5648A Dat. 24GB x 6 Int Autoloader 2595
Mounting Frame 5.25" for C1533/ C1554 ..... 27 ea.
Mounting Frame 5.25" for C1534/C1536/C1599 25 ea.

iomega

Ditto Max 7GB Int 195

NOVASTOR

*Novaback 4-in-1 for Win'95 & NT - FD ..... *(55)*
Novaback 5.0 for Win'95 & NT - CD 54

Seagate

SALE

*CNR-4324RP 2-4GB SCSI Int 5.25" ..... *(499)*
*CNR-4326RP 8GB 4mm SCSI w. 5.25" rail ..... *(665)*

Software (Arcada):

Back Up for Win'95 65
Back Up Exec for Netware Workstation 7.0 98
Back Up Exec for Netware Enterprise 7.11 845
Back Up Exec for Netware Server 7.5 435
Back Up Exec for Netware 1 Server 25-user 335
Back Up Exec for Win NT Workstation 189
Back Up Exec for Win NT Enterprise 7.0 865
Back Up Exec for Win NT Server 7.0 439

SONY

LanBacker 7000: 8GB DDS-2 w. ArcServe Serve
Int / Ext 1095/1175
WanBacker 7000: 8GB DDS-2 w. ArcServe Enterprise
Int / Ext 1695/1795
WanBacker 9000: 24GB DDS-3 w. ArcServe Enterprise
Int / Ext 2150/2175

TAPE CARTRIDGES:

3M - 4mm 90M 7.50
- 8mm 112M 6.95
- Travan TR-1 (800MB) 23.50
- Travan TR-3 (1600MB) 24.95
- Travan TR-4 (1600MB) 26.50
EXABYTE - 8mm 112M, 5GB 9.95
- 8mm 160MXL (for XL drives) 15.95
- 18C 8mm Cleaning Cartridge 19.95
HP - 92283B: 4mm 90M (2GB) / 5-pk 7.50/35
- 92283K: 4mm Cleaning Tape 2-pk 21.95
- 92300A: 4mm 120M (4GB) / 5-pk 12.95/59
- C1517A: 4mm 125M DDS-3 (12GB) 27.99
- C1570A: 4mm 125M Autoloader 165
- C1572A: 4mm 120M Autoloader 119
- C4429: 5GB Single 25
- C4429D: 5GB 5-pk 119
*MAXELL - 4mm 90M Dat. ..... *(7.99)*
SONY - 4mm 90M for DDS-1 ..... 7.95
- 4mm 120M for DDS-2 ..... 13.95
- 4mm 125M for DDS-3 ..... 27.95

20. VGA CARDS

ATI

*All-in-1 Wonder 4MB PCI ..... *(165)*
All-in-1 Wonder Pro 4MB AGP / PCI 259/245
All-in-1 Wonder Pro 8MB AGP oem / reg 265/299
All-in-1 Wonder Pro 8MB PCI oem / reg 245/289
Xpert@Play 4MB AGP oem / reg 109/119
Xpert@Play 4MB PCI oem / reg 105/115
Xpert@Play 8MB AGP oem 135
Xpert@Play 8MB PCI oem / reg 125/135
Xpert@Work 4MB AGP oem / reg 89/105
Xpert@Work 4MB PCI oem / reg 85/99
Xpert@Work 8MB AGP oem 115
Xpert@Work 8MB PCI oem / reg 109/125
4MB upgrd for Xpert@Play & Xpert@Work 89

ASUS

V3000 4MB AGP 99

CREATIVE LABS

3D Blaster Voodoo II 8MB PCI 215
3D Blaster Voodoo II 12MB PCI 275

DIAMOND

Fire GL 1000 Pro 4MB AGP oem 149
Fire GL 1000 Pro 4MB PCI oem 129
*Fire GL 1000 Pro 8MB AGP oem ..... *(179)*
*Fire GL 1000 Pro 8MB PCI oem ..... *(165)*
Monster 3D 4MB PCI oem / reg 125/175
Monster 3D II 8MB PCI oem / reg ..... *(209)/229
Monster 3D II 12MB PCI oem / reg 289/295
Stealth 3D 2000 Pro 2MB PCI oem 49
Stealth 3D 4000 4MB AGP oem 65
Stealth II 3D 4MB PCI oem 95
Viper V330 4MB AGP oem / reg ..... *(92)/189
*Viper V330 4MB PCI oem / reg ..... *(89/155)*

DYNAMIC PICTURES

Oxygen 102 8MB SDRAM PCI for Win NT 385
Oxygen 202 16MB SDRAM PCI for Win NT 879
Oxygen 402 32MB SDRAM PCI for Win NT 1759

HERCULES

*Stingray 128 3D 8MB EDO reg ..... *(199)*

J-BOND

JDC-9750 4MB AGP 65

matrox

Millennium II 4MB AGP oem / reg 125/139
Millennium II 4MB PCI oem / reg 124/138
Millennium II 8MB AGP oem 185
*Millennium II 8MB PCI oem / reg ..... *(175/189)*
Mystique 220 4MB PCI oem / reg 79/89
Production G100 8MB AGP oem 89
Rainbow Runner Studio (upgrd for Mystique) 165
Rainbow Runner Studio (for Millennium II) 199
*M3D 4MB upgrade ($20 Rebate) ..... *(75)*
Memory Upgrade (for Millennium II):
- 4MB / 8MB / 12MB 99/175/249
*Video, Graphics & TV Combo Kit ..... *(259)*

NUMBER NINE

*Imagine 128 Series II 4MB EDO PCI ..... *(109)*
*Revolution 3D 128 4MB AGP oem / PCI oem (purchase w. systems) ..... *(115/109)*
Revolution 3D 128 4MB AGP reg 135
Revolution 3D 128 4MB PCI reg 129
*Revolution 3D 128 8MB AGP oem / PCI oem (purchase w. systems) ..... *(169/165)*
Revolution 3D 128 8MB PCI reg 185

OTHERS

Boca Voyage Movie Player Accelerator 285
ELSA: Gloria XL 16MB+24MB 1399
InterGraph Intense 3D Voodoo 6MB 225
STB Velocity 128 AGP (no TV), boxed oem 129
Televiewer Plus for Win 3.11 & '95 only 145
Tvator Pro PC/Mac VGA to NTSC Scan Converter119
Tvator Remote Pro VGA to NTSC Scan Converter 229

21. VIDEO / DIGITAL CAMERA

AGFA

Ephoto 307 Digital Camera 339
Ephoto 1280 859

BEST DATA

Digital Color Camera DDC-100 125
Digital Color HCC-100 w. Photo Edit 199

Canon

Powershot 350 LCD 475

CASIO

QV-11 Digital Camera 285
QV-200 Digital Camera 399
QV-300 Digital Camera 665

CONNECTIX

Quick Cam / Quick Cam 2 Color 99/225
Quick Cam VC Parallel / VC USB 119/119.50

EPSON

Photo PC-500 Digital Camera 345
*- w. Photo Pix LCD Monitor ..... *(459)*
Photo PC-550 285
*Photo PC-600 1024x768 ..... *(665)*

Kodak

*DC50 Digital Camera Zoom Lens ..... *(465)*
DC120 Camera 1.6" Color 735
DC210 Zoom Camera 759
DVC300 Digital Video Camera 149
DVC323 Digital Video Camera 169

OLMPUS

D220L 640x480 475
D320L 1024x768 675
D600L 1280x1024, 3X Zoom 1195

PANASONIC

KXL-600A Digital Camera 225

SONY

DSC-F1 Digital Still 495
Mavica MVCFD-5 Digital Camera 489
Mavica MVCFD-7 w. Zoom 685

UMAX

Photorun Digital Camera DT for Win'95 239
Photorun Digital Camera LP for Win'95 199

**(sale price) ..... SPECIALS, limited to stock on hand*
Prices subject to change without notice

http://www.centralcomputer.com for current prices & product catalog

SOFTWARE

PC SOFTWARE

Adobe

Acrobat 3.0 177
Acrobat Capture 2.0 599
FrameMaker 5.5 / (special) ..... 745/*(499)
Illustrator 7.0 for Win 32 (special) ..... 365/*(265)
PageMaker 6.5 for Win 95 (special) ..... 345/*(295)
Type Mill 10
PhotoDeluxe 2.0 49
Photoshop 4.0 upgrade 295/429
Premiere 4.2 ..... 399/609

AUTODESK

AutoCAD LT '97 ..... 389.95
AutoSketch 2.1 for Win & Win'95 89
Symbols '97 87

BORLAND

C++ 5.0 for Dos, Win & Win 32 CD 329
C++ 5.0 Developer Suite 425
C++ Builder 3.0 Professional / upgrade 575/285
Delphi Developer 2 Kit / upgrade ..... *(345/255)
Delphi 3.0 upgrade 499/249
I Builder 3.0 Prof / upgrade 595/295
Paradox 7.0 for Win'95 & NT (Runtime) 265
Turbo Assembly 5.0 for Win'95 115
Visual dBase 7.0 Prof for Win'95 & NT 389
upgrade 195

COREL

Corel Draw 5.0 for Win 3.11 CD ..... *(195)
Corel Draw 7.0 for Win'95 & NT ..... *(349)
Corel Draw 8 CD / upgrade 425/225
Corel Flow 3 129
Corel XARA 179
Itsmine Suite 69
Perfect Office Professional 7.0 CD ..... *(175)
Ventura 7 for Win'95 CD 349

DELRINA

Comm Server ..... *(349)
Comm Suite 2.1 ..... *(99)
Cyberjack for Win'95 ..... *(129)
WinFax Pro 4.0 for Network (client) ..... *(149)

IBM

Anti-Virus Desktop 2.52 oem 24
OS/2 Warp 4.0 Single WS / Server 195/539
Via Voice for Win 32 oem / reg 39.95/89
Via Voice Gold for Win 32 138

INTUIT

Quick Basic '98 45
Quicken Deluxe '98 CD 59.95
Quicken Family Lawyer CD ..... *(34)
Quicken Financial Suite '98 (3-in-1) 86.95
Quickbooks 5.0 / Professional 5.0 ..... 97/135

Lotus

1-2-3 97 for Win 32 upgrade ..... *(129/149)
cc:Mail 6.1 Systems Pack Server 134
cc:Mail 8.0 Advanced System Pack 465
cc:Mail 8.0 Client for Win 32 135
cc:Mail Mobile E-Mail 7.0 for Win'95 & NT 115
Organizer 97 for Win'95 75
Smart Suite 97 for Win 32 oem / reg ..... *(145/325)

MICROGRAFX

ABC FlowCharter 4.0 99
ABC Graphics Suite Live 6.0 CD 275
Designer Power Pack CD 335
FlowCharter Live 7.0 CD 279
Graphic Suite #2 for Win 95 215
Picture Publisher 8.0 219
Simply 3D 95
Web Library 2.0 239

Microsoft

Access 97 upgrade 299/99
Access Developer's Kit for Win'95 459
Back Office 2.5 Client 5-user 1199
Back Office Resource Kit pt 1 / pt 2 ..... 59/95
Back Office Server 2.5 2295
Excel 97 / upgrade 299/95
Exchange Server 5.5 5 Client 10 Client 899/1245
Frontpage 98 135
Home Essential 98 upgrade 94
Office Pro 97 + Bookshelf CD 529
Office 97 Small Business Edition 449
Office 97 Standard 445
PC Mail server 5.5 Bonus 445
Picture It! for Win'95 47
Power Point 97 upgrade ..... *(129/149)
Project 98 for Win'95 / upgrade 439/179
Proxy Server 925
Publisher 98 Deluxe - CD 119
Services for Netware (add-on for Win NT 4.0) 145
SNA NT Server 5-user 395
SNA NT Workstation 199
SQL NT Server 6.5 5 user 1299
SQL NT Workstation 6.5 475
SQL Server Internet Connection 2795
System Mgt/MS Server 5 / 10 Client 825/1045
Visual Basic Enterprise 5.0 1095
upgrade 625
Visual Basic Professional 5.0 449
Visual C++ Enterprise 5.0 1089
Visual C++ Professional 5.0 485
Visual FoxPro Professional 5.0 upgrd 449/235
Visual FoxPro Standard 3.0 for Win 189
Visual InterDev 459
Visual J++ Pro 85
Visual Source Save 5.0 / upgrade 475/95
Visual Studio Professional 925
Windows 95 OSR v2.5 + upgrade '98 compan 115
Windows '95 OSR v2.5 oem + Plus (for new PC) 119
Windows for Workgroups 135
Win NT 4.0 Server 5 user / 10 user ..... *(695/995)
Win NT 4.0 Workstation CD 285
Word 97 / upgrade 299/79

QUARTERDECK

Cleansweep 3.0 Deluxe 49
Hijak Professional 4.5 for Win'95 95
Internet Suite 2.0 32
Procomm Plus 4.7 for Win32 CD 145
Qdemm'97 v9.0 67
Remove It 2.0 17
Total Web 36
Web Author 2.5 for Win'95 45
Web Compass 2.0 46
Zip It for Win'95 32

SYMANTEC

ACT! 4.0 for Win'95 & NT 189
C++ 7.5 for Win'95 & NT 69
For Your Eyes Only 75
Norton Administrator Suite 10 user 525
Norton Anti Virus Deluxe 4.0 67
Norton Crashguard ..... *(41)
Norton Desktop 3.0 for Win oem / reg ..... *(45/99)
Norton Diskdoctor 3.5 for Dos Win CD 79
Norton Healthy PC 25
Norton NT Tools 47
Norton PC Handyman 40
Norton Uninstall Deluxe ..... *(39)
Norton Utilities '95 v3.0 ..... 69.95
Norton Utilities 8.0 for Dos & Win 79
PC Anywhere Remote & Host 8.0 Win'95 & NT 135
Visual Cafe 2.0 for Java Web Development 89
Visual Cafe 2.0 Database Development 459
Visual Cafe 2.5 Professional Development 285

OTHERS

Anti-Virus with In-Defense 59.95
Cacre, Omnipage Professional 8.0 / upgrade 465/125
Cakewalk Professional 6.0 165
Cakewalk Professional Audio Deluxe 285
Claris File Maker Pro 4.0 for Win'95 & NT 179
Claris Works 4.0 for Win'95 49
Dr. Solomon's Anti-virus Deluxe for Win'95 & NT 59
Ludota Pro 4.0 - Single / 5-user 39/185
FastBack Plus 6.0 119
Fractal Design-Painter 5.0 / upgrade 265/89
Goldmine 4.0 179
Kai's Power Tools 3.0 for Win'95 & NT 119
Kai's Power Goo for Win 32 45
Laplink for Win'95 129
Metacreations Painter 3D for Win & Mac 269
Metacreations Poser 3D for Win & Mac 175
OA Plus 7.1 for Win'95 59
Quark XPress 4.0 735
Sidekick 98 43
Uninstaller 4.5 for Win 32 39
Visio 5.0 for Win & Win'95 135
Academic version 95
Visio 5.0 Professional / upgrade 299/136
Academic version 199
Visio 5.0 Technical 296
Visio Intelli CAD '98 319

CD TITLES

NEW ARRIVALS

Army Men 39
Battle Zone 39
Blade Runner 21.95
Cabela's Big Game Hunter 19.95
Caesar Palace 29.95
Castro Honda Racing Championship 38
Cave 29.95
Deer Hunter / Duck Hunter / Turkey Hunter 19.95
Die by the Sword 39
F-15 Jane's Combat Simulation 37
Forsaken 37.95
Frogger 37
Grand Theft Auto 39
Hot Rod Burnout Championship Drag Racing 38
Interstate III 39
Liberation Day 29.95
Linux Utilities 44
M1 Tank Platoon 2 39
Mastermind 19.9
Might & Darkness the Prophesy 39.95
Might & Magic IV the Madness of Heaven 44.9
Panzer 44 39
Power Boat Racing 39
ProBowl 3D 19.9
Puzzle Bubble 24
Red Baron II 38
Redneck Rampage Rides Again 36
Quartet of a Million Multimedia Graphic Suite 39
Sim Safari 39.95
Spec Ops: Ranger Lead the Valley 42.95
StarCraft 39.95
Star Wars: Rebellion 39.95
Steel Panthers III 24.95
Streets of Sim City 37
Tomb Raider II / Gold ..... 34.95 / 47
Tonka Garage (age 2+) 29.95
Touring Car Championship (Sega, $20 Rebate) 39.95
Thunder Truck Rally 49
Triple Play '99 36
Ultimate Race Pro 42.95
Warhammer: Dark Omen 37
X Files Unrestricted Access 29.95

BRODERBUND

3D Home Architect 28
Arthur's Reading Race (age 3-7) 32
Click Art 40,000 Starter Image Pak 24
Handwritten Font 36
Incredible 65,000 Image Pak 52
Just Grandma and Me MPC & MAC ..... *(24)
Kid Pix Studio ..... *(25)
Learn the Art of Magic 36
Orly's Draw a Picture 34.99
Printshop Live Mail 33
Printshop Premier 5.0 52

Microsoft (HOME SERIES)

3D Movie Maker (age 8+) oem 9
A Bridge Too Far 46
Age of Empires 4
Bookshelf '98 4
Creative Writer 2 34
Encarta '98 / Deluxe 46/69
Expedia Streets '98 / Deluxe 45/64
Expedia Trip Planner '98 37
Explorapedia - World of Nature 29
Explorapedia - World of People 29
Flight Simulator 98 ..... 49.95
Fury 3 39
Goosebumps 30
Greetings Workshop Deluxe 2.0 42
Julia Child Home Cooking oem / reg 19/29
Magic School Bus - Human Body ..... *(35)
Money '98 / Financial Suite 24/48
NBA Full Court Press 37
Space Simulator ..... *(34.95)

TWINBRIDGE

Asian Bridge (Chinese partner internet) ..... *(49)
Asian Viewer 27
Chinese Partner 4.5 for Win & Win'95 ..... *(169)
Chinese Suite for Internet ..... *(179)
English - Chinese Dictionary 39.95
Japanese Partner 4.5 for Win'95 ..... *(179)
Korean Partner 4.5 for Win'95 ..... *(169)
Wisdom Pen v2.5 + Chinese Partner Lite ..... *(149)

WALNUT CREEK

Ada CD Rom (Jun'97) 24
ASME's Mechanical Engineering Toolkit (Dec'97) 26
C/C++ User Group Library (Aug'97) 26
CICA 32 for Win'95 & Win NT (Apr'98) 26.95
Clipart Cornucopia (Mar'98) 17
Free BSD 2.2.5 (Nov'97) / w. Book 22/32
G N U Tools + + (Sept'97) 24
Internet Info (Dec'97) 26.95
Linux RLDhat 5.0 (Feb'98) 21.95
Linux Toolkit 6 CD (Jun'97) 24
Linux Slackware 3.4 (Nov'97) 17
QRZ Ham Radio vol 11 (Mar'98) 24
Turbo Business Apps for Linux 26.95
Turbo Games + + for Linux v1.4 ..... 22.95
Python Toolkit (Jun'97) 24
Unix Freeware (Jan'98) 24.95
X2 11 (Jan'93) 24.95

REFERENCE

ART

3D Fonts 8
101 Dalmations Print Studio 24
American Greetings Create a Card Plus 27
Christian Dior Lassen - Master Artists of the Sea 27
Disney's Magic Artist 27
Expert Clipart Fonts 26
Hercules Print Studio 24
Fantasia Painting 26
Print Artist 4.0 Platinum oem 24
Printmaster Gold 4.0 Bonus Pak 24
Ray Dream Studio (Fractal Design) 32
Water Color My Way (Jack Reid) 19.95
Winnie the Pooh Print Studio 24
Wishbone Print Tricks 24

ATLAS / TRAVEL

Exploring America's National Park 14.99
Himalayas Mountains 24
Key Master Maps 24
Precision Mapping Streets 3.0 44
See the World by Train 29.95
Street Atlas 5.0 for Win & Win32 44
Wall Disney World Explorer 29.95
World Atlas + Almanac 6.0 24

BIBLE

Bible Rom - Creation / Moses / Noah's Ark
Exodus / Joshua ..... 14 each
Bible Study & Games II 24
Holy Bible for Dos / Win'95 ..... 26/32
Illustrated Holy Bible 24
Interactive Children's Bible 26
King James Bible 14
Multimedia Family Bible 24
New Family Bible for PC & MAC 14
Play n' Learn Bible II 24
Proverbs Screen Saver 14
Quick Verse 3.0 (King James) 17

DICTIONARY / STUDY AIDS

Pro Series
Calculus II / Biology 14.14
Chemistry / Electronics 14.14
Fractions / Geometry 14.14
Math II / Middle School Grammar 39.34
Physics / Probability & Statistics 34.14
Science 4CD Set / Engineering 34
SAT Ace Interactive '98 19
Ultimate Speed Reader 24
Visual Dictionary (talking edition) 39

INTERNET

Sirius

Get Sirius for $5! 2 Months FREE.
Try the ISP rated Best of the Bay Use Internet service from Sirius Connections the brightest star in cyber space, for only $5. No registration fee and 2 months free CDs for start up available at any of our stores. Offer good for new subscribers only.

visit our stores for details

Expert Internet Tutorial 24
Great Web Art & Tools 24
Hot Dog Web Editor 9.95
HTML Template Master 24
Internet Shop Builder 69
JAVA Starter Kit 24
CGI Change 24
Web Mace 24
Web Specialty 24

UTILITIES

C/C++ Super Library 24
Complete Win NT Encyclopedia 24
Delphi Super Library 24
Electronics 2000 24
Fox Pro Super Library 24
Netware Super Library 24
Night Owl v2.1 / v2.4 ..... 17/24
Visual Basic Source Code & Utilities 24

4000+ CD TITLES
IN STOCK
Visit Our Stores or Website For Complete Listings

**sale prices* *SPECIALS, limited to stock on hand*
Prices subject to change without notice

http://www.centralcomputer.com for current prices & product catalog

continued from page 54

Looking For New Opportunities: A shorter-term, less strategic approach for gaining benefits from the telecommuting dividend begins with each telecommuter making suggestions about extra goals or accomplishments that might be possible with the extra time and energy that telecommuting helps to make available. Without any prompting, nearly everyone's natural response to a less crowded schedule is just to do more of the same work already being done. But when challenged to think about what more can be accomplished, most telecommuters can offer a surprisingly valuable shopping list of new opportunities and long-neglected projects.

For example, a supervisor of file clerks in a large insurance agency convinced her boss that she should use the extra time she had found through one-day-a-week telecommuting to develop a procedures manual for her team. Within a month, she had it ready, and within six months, her manager noted significant improvement in her team's response to rush demands and increased compliance with daily production schedules. The supervisor's telecommuting dividend was being leveraged into productivity improvements throughout the team.

Initiating Customer Contact: A third approach for realizing benefits from the telecommuting dividend is for individual telecommuters to use their extra time and energy to initiate contact with their ultimate customers—the people inside or outside their organization who make use of whatever products and services the telecommuters provide. After a while, this feedback will begin to coalesce around certain issues, certain problems, or certain opportunities that seem most fruitful to pursue. The telecommuters can then apply some of their extra time and energy toward responding to these issues, solving these problems or capitalizing on these opportunities—none of which would be perceived if it were not for the productivity advantages of telecommuting.

These three approaches can be applied in sequence, or concurrently. There may also be other ideas that make more sense in your particular situation. It matters how you apply the productivity gains of telecommuting, but it matters even more that you apply them to the most important goals and tasks you can find.

When "Duds" Apply To Be Telecommuters

No one suggests that telecommuting is rocket science, or brain surgery. Within even a modestly supportive organizational environment, the vast majority of people who want to succeed as telecommuters are certainly able to do so.

But this extremely high success rate doesn't imply that anyone at all can work successfully as a telecommuter.

Success at telecommuting seems to require a desire to work this way. When forced on people who don't want it, telecommuting can easily become an onerous burden, an ostracism from the centers of power of organizational society. A form of banishment, even!

What It Takes To Succeed: In addition to some degree of motivation, successful telecommuters usually show some loyalty to the company, a degree of self discipline, some self-confidence and self-reliance, a minimum comfort level with communicating at a distance, a responsible nature, good social skills but no discomfort at being alone for long periods of time, a willingness to learn new skills and new tools, and a well-organized approach to daily tasks.

Telecommuting simulations are another element of telecommuter training that helps separate the good candidates for telecommuting from the more problematic candidates.

It's an impressive package of traits that not everyone who wants to telecommute can muster. So it's inevitable that some people will apply for telecommuting positions without being able to demonstrate all the requisite characteristics.

The question then becomes, how do you handle requests you want to deny?

A simple way is to help the individual realize, one to one, that he or she has failed to demonstrate certain skills and traits that are important for success at telecommuting, and to give them some guidance on how to build such skills and the right kind of track record so they can be considered more favorably for telecommuting some time in the future.

Another, perhaps better approach is to develop a company policy that spells out minimum requirements for telecommuting—not only personal characteristics, but employment qualifications and required elements in job descriptions. Properly drawn, this policy will provide a fair, consistent basis for approving and disapproving applications to start telecommuting.

Some companies have found success in weeding out candidates who are unsuitable for telecommuting by sending all—or nearly all—applicants into a telecommuting training program. This helps filter out employees who don't meet minimum requirements—such as having a year or more of continuous employment with the organization, having no more than one absence or late arrival within the last year, and working in core positions (receptionists might be ineligible for telecommuting) or being responsible for certain tasks (like computer work or telephone work) that can easily be done as a telecommuter.

Telecommuting simulations are another element of telecommuter training that helps separate the good candidates for telecommuting from the more problematic candidates.

For example, many organizations now ask candidates for telecommuting to work for a week or two in the central office—but to pretend to be working at a distance. In other words, the telecommuter candidates can make phone calls to people who provide technical and administrative support, and can communicate with their supervisor and co-workers. But they can't have the normal face-to-face interaction available to everyone else working in the centralized facility.

This usually puts a considerable amount of pressure on the candidates. Those with the skills and motivation to succeed can work through their problems and manage to accomplish some useful work despite the difficulties. The less qualified candidates will often wash out of the training. Without the right skills and strong enough motivation to succeed as telecommuters, they'll usually find the whole experience so frustrating and difficult that they give up the notion of telecommuting and withdraw their applications.

In any case, this kind of simulation has real value, because it's an excellent way to provide candidate telecommuters with a real "immersion" experience in which to learn and practice the techniques and self-discipline methods they'll need when telecommuting for real. Because the telecommuter candidates are operating within a kind of protected environment, when they eventually complete their training and go home to work, they won't face such a severe "sink or swim" situation. It also helps the telecommuter candidate's supervisors learn how to communicate at a distance. ◆

Copyright © 1998 by Robert Moskowitz. All rights reserved.

KONICOM

OUR SPECIALS ARE THE BEST VALUES IN TOWN!

System Special of the Month

Deluxe Tower Case / Power Supply
Intel® 300MHz Pentium™ II Processor – 512K L2
Intel® 440BX Chipset on board
64MB RAM Memory Chips
Enhanced IDE HD/FD Controller
3 ½" internal Floppy Disk Drive
4.3 GB Internal IDE Hard Drive – UDMA
Matrox Millennium II with 4MB RAM – AGP
Windows 95™ Enhanced Keyboard
PSII Logitech® Mouse with 2 buttons
32X E-IDE Internal CD-ROM Drive
16 Bit SoundBlaster Compatible Soundcard
100Watts PMPO Stereo Amplified Speakers
56K FAX, DATA and VOICE Internal Modem
Microsoft® Windows 95 CD / Manuals
Grolier's Encyclopedia CD plus 6 Titles
15" MONITOR (0.28mm dot) – NI Flat Screen

$ 1,188.88

Intel® Pentium™ II 233MHz MMX™	$ 1,029.98
Intel® Pentium™ II 266MHz MMX™	$1,099.98
Intel® Pentium™ II 300MHz MMX™	$1,188.88
Intel® Pentium™ II 333MHz MMX™	$1,329.98
Intel® Pentium™ II 350MHz MMX™	$1,429.98
Intel® Pentium™ II 400MHz MMX™	$1,699.98

Monitors UPGRADE :
(with system purchase only)

17" Digital Control (1280X1024)	$ 100.00
17" DecaView G387 (0.25mm)	$ 175.00
17" DecaView GA387 (0.25mm)	$ 225.00
17" Relysis (1280X1028–0.26mm)	$ 225.00
19" Flat Screen, Digital - 0.26mm	$ 375.00

KCI Value HOME PC

Mini Tower Case / Power Supply
BIOSTAR® Motherboard
Intel® 300MHz Pentium® II processor
Intel® 430TX / 440LX / 440BX Chipset
512K Pipe-line burst Cache Memory
64MB RAM Memory Chips
4 E-IDE HD and 2 FD Controller
2 Hi Speed Serial and 1 Parallel Port
6.4GB Ultra DMA Internal IDE Hard Drive
3.5" Floppy Disk Drive
DIAMOND® Stealth 2000 PRO 3D - 4MB
MPEG / Video CD Ready
Windows® 95 Enhanced 104 Keyboard
Logitech® Mouse - 2 buttons – Serial
56K Internal Fax/Data Modem
Internal 32X Internal CD-ROM
ESS® 16 Bit SoundBlaster Comp. Soundcard
100Watts PMPO Amplified Speakers
17" NI – SVGA Monitor - 0.28mm dot
Microsoft® Office 97 Professional CD
Microsoft® Windows 95 CD Software

$ 1,388.88

AMD® K6™ 200MHz with MMX™	$ 999.98
AMD® K6™ 233MHz with MMX™	$ 1,099.98
AMD® K6™ 300MHz with MMX™	$ 1,249.98
Cyrix® M2™ 200MHz with MMX™	$ 999.98
Cyrix® M2™ 233MHz with MMX™	$ 1,099.98
Cyrix® M2™ 300MHz with MMX™	$ 1,199.98
Intel® Pentium™ 200MHz MMX™	$ 1,079.98
Intel® Pentium™ 233MHz MMX™	$ 1,099.98
Intel® Pentium™ II 233MHz MMX™	$ 1,188.88
Intel® Pentium™ II 266MHz MMX™	$ 1,299.98
Intel® Pentium™ II 300MHz MMX™	$ 1,388.88
Intel® Pentium™ II 333MHz MMX™	$ 1,539.98
Intel® Pentium™ II 350MHz MMX™	$ 1,649.98
Intel® Pentium™ II 400MHz MMX™	$ 1,899.98

KCI – Starter PC SPECIALS

Deluxe Tower Case / 230W Power Supply
Cyrix® 6x86 – P200+ MHz processor
CPU Cooling Fan / heatsink
QDI® SpeedEasy™ Motherboard
Award® BIOS, 3 ISA, 4 PCI Slots
512K Pipe-line burst Cache Memory
32MB RAM Memory
2 HI Speed Serial and 1 Parallel Port
3.5" Internal 1.44MB Floppy Disk Drive
2GB Hard Drive – enhanced IDE
Super VGA Video Card – MPEG / Video CD
33.6K Fax and Data Modem
Windows® 95 Enhanced Key Keyboard
Logitech® Mouse - 2 buttons – Serial
24X Internal CD-ROM with Sound Card
14" Non-Interlaced Monitor 0.28mm dot
Microsoft® Windows 95 CD
Lotus® SmartSuite 97 CD includes :
Lotus® Organizer / Lotus® Freelance
Lotus® 123 / Lotus® WordPro
Lotus® Approach

$ 666.66

AMD® K6™ 200MHz with MMX™	$ 699.98
AMD® K6™ 233MHz with MMX™	$ 749.98
AMD® K6™ 300MHz with MMX™	$ 899.98
Cyrix® M2™ 200MHz with MMX™	$ 666.66
Cyrix® M2™ 233MHz with MMX™	$ 729.98
Cyrix® M2™ 300MHz with MMX™	$ 848.88
Intel® Pentium™ 200MHz MMX™	$ 699.98
Intel® Pentium™ 233MHz MMX™	$ 777.77
Intel® Pentium™ II 233MHz MMX™	$ 899.98
Intel® Pentium™ II 266MHz MMX™	$ 979.98
Intel® Pentium™ II 300MHz MMX™	$ 1,088.88
Intel® Pentium™ II 333MHz MMX™	$ 1,199.98
Intel® Pentium™ II 350MHz MMX™	$ 1,299.98
Intel® Pentium™ II 400MHz MMX™	$ 1,499.98

KCI DVD BOX

Deluxe Tower Case / POWER SUPPLY
Intel® 300MHz Pentium® II Processor
Intel® 430TX / 440LX Chipset
512K Pipeline Burst Cache
64 MB EDO RAM Memory Chips
2 Serial and 1 Parallel Port
Award® BIOS, 3 ISA, 4 PCI Slots
Samsung® 3.5" Floppy Drive
4.3 GB Hard Drive – Ultra DMA
Diamond® Stealth 3D 2000 PRO 4MB Video Card
104 Keys Windows 95 Keyboard
Logitech® Mouse - 2 Buttons
56K Internal Fax/Data/Voice Modem
Creative® Internal DVD CD-ROM
Creative® MPEG2 Dxr2 Decoder
DVD and VCD Movies Playback
Creative® SoundBlaster AWE64
300 Watts Amplified Speakers
15" SVGA Monitor – Digital Controls
Microsoft® Windows 95™ CD
FREE DVD Movie title of choice

$1,399.98

AMD® K6™ 200MHz with MMX™	$ 1,088.88
AMD® K6™ 233MHz with MMX™	$ 1,099.98
AMD® K6™ 266MHz with MMX™	$ 1,199.98
AMD® K6™ 300MHz with MMX™	$ 1,299.98
Cyrix® M2™ 200MHz with MMX™	$ 1,099.98
Cyrix® M2™ 233MHz with MMX™	$ 1,149.98
Cyrix® M2™ 300MHz with MMX™	$ 1,199.98
Intel® Pentium™ 200MHz MMX™	$ 1,099.98
Intel® Pentium™ 233MHz MMX™	$ 1,129.98
Intel® Pentium™ II 233MHz MMX™	$ 1,299.98
Intel® Pentium™ II 266MHz MMX™	$ 1,388.88
Intel® Pentium™ II 300MHz MMX™	$ 1,399.98
Intel® Pentium™ II 333MHz MMX™	$ 1,599.98
Intel® Pentium™ II 350MHz MMX™	$ 1,699.98
Intel® Pentium™ II 400MHz MMX™	$ 1,899.98

Peripherals on Sale

MEMORY MODULES

4X32 Fast Page or EDO - 16MB	$ 19.98
8X32 Fast page or EDO – 32MB	$ 29.98
4X64 SDRAM Module - 32MB	$ 34.98
8X64 SDRAM Module - 64MB	$ 79.98
16X64 SDRAM Module – 128MB	$ 169.98
32MB SDRAM 100MHz DIMM	$ 49.98
64MB SDRAM 100MHz DIMM	$ 99.98
128MB SDRAM 100MHz DIMM	$ 195.00

SCSI Controllers

16Bit ISA SCSI Card	$ 49.98
PCI version SCSI Card	$ 49.98
Adaptec® 2940UW – PCI	$ 179.98

Keyboards

Mitsumi® 104 Key - Windows 95	$ 9.98
Keytronic Keyboard - Windows 95	$ 25.00
Microsoft® Natural Keyboard	$ 59.98

Chassis

Minitower with 230W Power Supply	$ 19.98
Super Mini with 230Watts PS	$ 29.98
Deluxe ATX Tower Case / PS	$ 59.98

Monitors / Video

14" Non-Interlaced 0.28mm dot	$ 129.98
15" Non-Interlaced - Digital Controls	$ 149.98
17" NI 1280X1024 - Digital Controls	$ 269.98
Zoltrix Video Capture / TV Tuner	$ 89.98

GREAT DEALS OF THE MONTH

Hard Drives	
3.2GB Ultra DMA IDE Hard Drive	$ 139.98
4.3GB Ultra DMA IDE Hard Drive	$ 149.98
6.4GB UDMA IDE Hard Drive	$ 199.98
2.1GB SCSI Hard Drive – 7200 rpm	$ 199.98
Modems	
56K Int. Fax/Data/Voice Modem	$ 39.98
Rockwell® 33.6K Fax / Data Modem	$ 39.98
Multimedia / Video	
Internal 32X IDE CD-ROM	$ 59.98
S3® Virge 3D with 4MB EDO Video	$ 44.98
SiS® 4MB AGP Video Card	$ 39.98
ATI® All In Wonder PRO with 4MB	$ 199.98
Matrox® Millennium II with 4MB AGP	$ 129.98
ESS® 1869 Sound Card / Speakers	$ 19.98
Creative® Value AWE64 CD Kit	$ 169.98
Creative® SoundBlaster AWE 64	$ 69.98
Motherboards / Processors	
	$ 129.98
BIOSTAR® 430TX – 512K PLC MB	$ 69.98
With Intel® Pentium 233MHz MMX	$ 199.98
BIOSTAR® Pentium II 440BX	$ 129.98
With Intel® PII - 300MHz Processor	$ 489.98
NETWORK	
16Bit ISA Ethernet Cards (Combo)	$ 14.00
32Bit PCI Ethernet Cards (Combo)	$ 16.00

Peripherals on Sale

Motherboards

BIOSTAR® TLC Pentium II MB	$ 125.00
BIOSTAR® 8500TTD – 512K PL Cache	$89.98
QDI® 430VX Explorer II SpeedEasy	$ 99.98
QDI® Titanium - 512K – 430TX	$ 109.00
QDI® Natoma Pentium Pro	$ 175.00
ASUS® TX97e - 512K PLC	$ 135.00
ASUS® P2L97 Pentium II Motherboard	$ 149.98
ASUS® P2L97-S Pentium II – SCSI	$ 249.98
ASUS® P2L97-DS Pentium II - Dual	$ 399.98

Video Cards

ATI® Xpert@Play with 4MB SGRAM	$ 179.98
Diamond Fire Pro 1000 – 4MB AGP	$ 119.98
Diamond® Viper Pro 330 – 4MB	$ 89.98
Diamond® Stealth 3D 2000 PRO	$ 49.98
Matrox® Millennium II – 4MB WRAM	$ 119.98

Modems

Diamond® Supra PCI Fax & Data 56K	$ 59.98
Zoltrix® Rockwell® Fax & Data 56K	$ 49.98
Zoltrix® HSP KFLEX 56K F/D/Voice	$ 39.98
US Robotics Sportster F/D/V 33.6K	$ 75.00
US Robotics Sportster F/D 56K	$ 109.98

CDROMS / Multimedia

Toshiba 32X Internal IDE CD-ROM	$ 69.98
24X Internal IDE CD-ROM	$ 55.00
Creative DVD Kit	$ 279.98

1443 Noriega Street
San Francisco, Ca. 94122
Tel : (415) 664-3268
Fax : (415) 664-0883
MON-SAT:9:30AM – 7:00PM

1921 S. El Camino Real
San Mateo, Ca. 94403
Tel : (650) 577-1690
Fax : (650) 577-8841
MON-SAT:11:00AM – 7:00PM

550 Barber Lane
Milpitas, CA. 95035
Tel: (408) 943-8228
Fax: (408) 943-1898
MON-SAT:11:00AM – 7:00PM
SUNDAY : 11AM-6PM

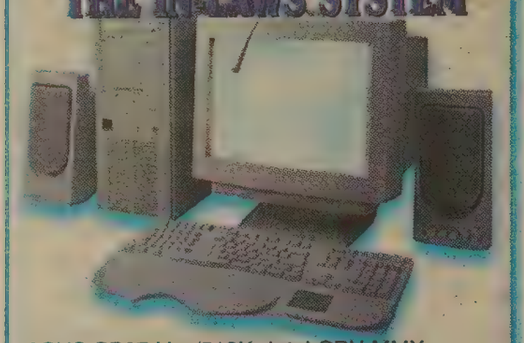
✪ Dealer inquiries welcome ✪ 1 Year parts and 5 years labor warranty ✪ Prices subject to change without notice ✪ Not responsible for typographical errors
✪ All trademarks are registered trademarks of their respective companies ✪ 3% Cash discount ✪ web address : www.beyond2k.com/kci ✪ email : kci@ako.com

The Best Prices.

Expert Personal Service Since 1993

2-Year Labor Warranty on All Systems • On-site Service

THE IN-LAWS SYSTEM

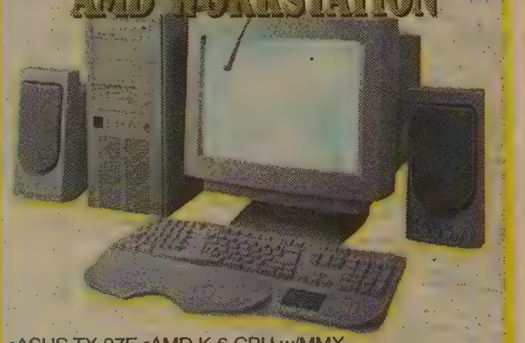


•ASUS SP97-V w/512K •Intel CPU MMX
•32MB EDO SIMMs 72pin
•2.1GB Western Digital EIDE HD
•4MB Video on Board •SB-16 Compatable
•24x CD-ROM •56K Fax/Modem
•Speakers, Mouse •Case •Windows 95 w/CD
•104K Keyboard

Pentium® 166MMX . . . $579
Pentium® 200MMX . . . $619

15" Monitor add: $190
I-Omega ZIP add: $89

AMD WORKSTATION

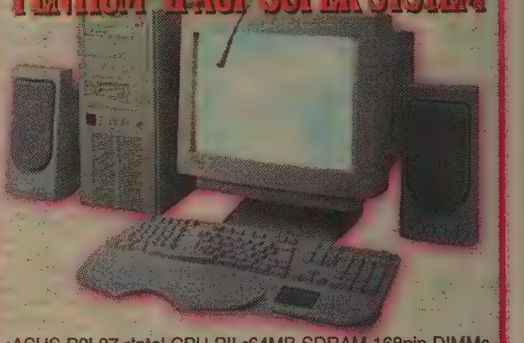


•ASUS TX-97E •AMD K-6 CPU w/MMX
•32MB EDO SIMMs 72pin
•Western Digital 4.3GB UDMA
•Diamond Stealth 3D 2000 w/4MB
•Creative Labs Sound Blaster 16 •24x Toshiba CD-ROM
•56K X2 of K-Flex Compatible
•I-Omega Zip 100MB EIDE •104K Mitsumi
•Acer 60W, Mini Case •Win 95 w/CD

K6-233 . . . . . $999
K6-266 . . . . . $1219

64MB upgrade add: $52
32X CD-ROM add: $10
15" Monitor $190

PENTIUM® II AGP SUPER SYSTEM



•ASUS P2L97 •Intel CPU PII •64MB SDRAM 168pin DIMMs
•Western Digital 6.4GB UDMA
•Diamond VIPER V330 w/4MB •Teac 32x EIDE
•56K X2 or K-Flex Compatible
•Creative Labs 64 AWE •Speakers, M.S. Mouse
•Windows 95 w/CD •ATX Medium Tower Case
•104 Keyboard

Pentium® II 266 . . . $1499
Pentium® II 300 . . . $1774

Monster 3-D add: $165
300MHz P-II add: $275
15" Monitor: $190

EIDE / UDMA HARDDRIVES

Fujitsu
1.2GB EIDE $119
3.2GB UDMA $151
5.2GB UDMA $199
6.4GB UDMA $235

Quantum
1.6GB UDMA $149
2.1GB UDMA $138
3.2GB UDMA $172
4.3GB UDMA $198
6.4GB UDMA $251

Western Digital
2.1GB UDMA $129
3.2GB UDMA $158
4.3GB UDMA $179
6.4GB UDMA $239
8.4GB UDMA $339

SCSI HARD DRIVES

IBM
2.1GB UW SCSI 32160W $229
4.3GB U SCSI 34330U $289
4.3GB UW SCSI 34330W 5400RPM $269
4.5GB UW SCSI 34550W 7200RPM $675
9.1GB UW SCSI 39100W 7200RPM $709

Quantum
2.1GB Tempest SCSI II $225
2.1GB Ultra SCSI $325
2.1GB UW SCSI Atlas $339
4.5GB UW SCSI 34550 Atlas $549
9.1GB UW SCSI 39100 Atlas $795

Maxtor
2.1GB $139
5.1GB $188
6.5GB $209

SCSI HARD DRIVES CONT.

Seagate
2.0GB UW SCSI 32550 . . . . . $289
2.1GB UW SCSI 32171W $489
4.0GB SCSI II 15150 . . . . . $399
4.5GB Ultra SCSI 34572N $529
4.5GB UW SCSI 34501 10,000RPM $649
9.1GB Ultra SCSI 19171N $859
9.1GB UW SCSI 19171W $739
9.1GB Ultra SCSI 19101N 10,000RPM . $929
9.1GB UW SCSI 19101W 10,000RPM . . $969

Western Digital
2.1GB E2170 Ultra SCSI $289
2.1GB E2170 UW SCSI $319
4.3GB E4360 Ultra SCSI $498
4.3GB E4360 UW SCSI $509
9.1GB Ultra Wide SCSI $779

MONITORS

Iiyama
8515G 15" .28dp $270
8617E 17" .26dp $498
9017E 17" .25dp $579
450 19" .26dp $779
8721E 21" .30dp $1,199
9221E 21" .28dp $1,265
31CM LCD 13.8" $2,399

ViewSonic
E641 14" .28dpi $185
E655 15" .28dpi $239
G771 17" .25dpi $479

MONITORS CONT.

ViewSonic Cont.
PT-771 17" .25dpi $599
G800 20" .28dpi $939
PT-813 21" .25dpi $1,289
P815 21" .25dpi $1,375
29GA 29" .28dpi $1,799

ART Media
1664 15" .25dpi $309
1864 17" .25dpi $569
1885 17" .25dpi $729

SONY
100ES 15" .25dpi $339
100GS 15" .25dpi $369
200ES 17" .25dpi $599
200GS 17" .25dpi $799
500PS 20" .30dpi $1,679

Impression
3+ 14" .28dpi $149
5VX 15" .28dpi $209
7+ 17" .27dpi $409
Vienna Pro 17" .25dpi $549
Vienna Pro 21" .28dpi $1,276

Relisys
14" .28dpi $129
15" .28dpi $170
17" .26dpi/.28dpi $299/289

NEC
P-750 17" .25dpi $769
P-1150 21" .28dpi $1,319

MOUSE

Logitech
My First Mouse $14
Mouseman II $24
Trackman Marble $49

Microsoft
M.S. Serial Mouse $26
M.S. PS/2 Mouse $28
M.S. IntelliPoint $39

Artec
Artec 3b Mouse $7

KEYBOARDS

Microsoft
Natural 104K $49

Keytronics
104K Win95 . . . . . $22

Mitsumi
104K Win95 . . . . . $13

NOTEBOOKS

Chembook . . . . . $CALL FOR PRICING

LABOR RATES

CPU Install $15
Memory Install $15
Motherboard Install $45
Hard drive/DR-Rom Install $45
Data Transfer $85
System Upgrade $60
System Assembly $35

NCAL Computer Source

4825 Hopyard Rd. • Pleasanton, CA 94588

(510) 460-0580

FAX (510) 460-0591

ncal@inreach.com

Next to Chili's & Lyon's

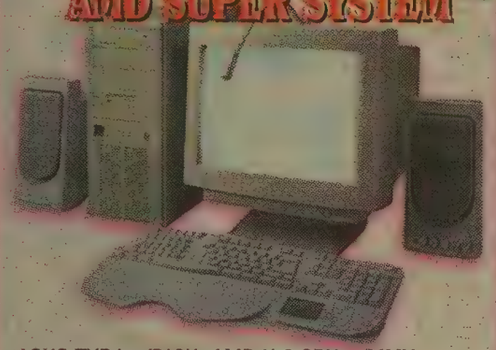
June 17, 1998 • Mention MicroTimes

Hours:
Mon-Fri: 9am-6pm
Sat: 10am-4pm

NCAL is not responsible for any typographical errors. Shipping, C.O.D., & Insurance are extra and non-refundable. 1-year parts 2-year Labor Warranty on new systems. 15% restocking fee will be charged on all returned items over 3 days. Price matching only applies to local vendors. Mail order, closeouts & refurbished are excluded. ALL PRICES ARE FINAL ON DATE OF PURCHASE. All prices are subject to change without obligation or notice.

We've Expanded, Twice the Size & Selection
Custom Configuration • Network Configuration
Delivery • Installation • Repairs • Upgrades • Complete Service for Your Home & Business

AMD SUPER SYSTEM



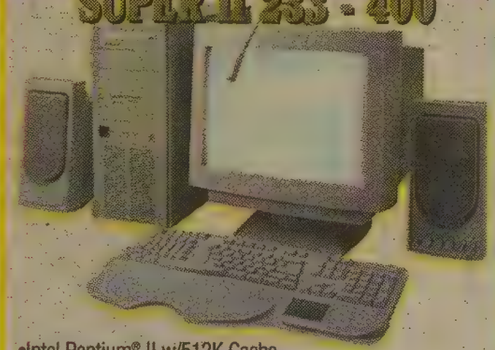
- •ASUS TXP4 w/512K •AMD K-6 CPU w/MMX
- •64MB EDO SIMM 72pin •Creative Labs SB-16
- •6.4 Western Digital UDMA •24x CD-ROM
- •Diamond Stealth II S220 4MB •104 Keyboard
- •56K Fax/Modem •Speakers, Mouse
- •Case •Windows 95 w/CD

K6-233 . . . . . $1019

K6-266 . . . . . $1279

128MB upgrade add: $89
ATX Form factor add: $39
15" Monitor add: $190

SUPER II 233 - 400



- •Intel Pentium® II w/512K Cache
- •64MB RAM •2MB EDO AGP Video Card
- •4.3GB Western Digital UDMA •24X Toshiba CD-ROM Drive
- •1.44 Teac Floppy •33.6 Fax/Modem
- •16-Bit Compatible Sound Card
- •Stereo Hi-Fi Speakers •Medium ATX •Logitech Mouse
- •Windows 95 w/CD

233/266 . . . . $990/1119

300/333 . . . $1229/1419

350BX/400BX $1499/1699

SPECIALS • SPECIALS

ASUS SP-97 Motherboard w/Video/UDMA/512K up to 300Mhz **$79**	I-OMEGA ZIP Drive **$89**
Hub LANPRO 10BT **$39**	3COM 3C905 10/100T **$60**
PRO 9017B IIYAMA 17" SVGA .25 dp **$579**	ADAPTEC 2940UW **$179**

MOTHERBOARDS:

ASUS
SP-97V w/Video & 512K w/3 ISA 4 PCI. . . . $85
TX97 W/ 512K w/ 4 ISA 4 PCI & SDRAM . . $139
TX97-E w/ 512K w/ 3 ISA 4 PCI $139
TX97-X w/ 512K w/ 4 ISA 4 PCI & SDRAM $139
TX97-XE w/ 512K w/ 4 ISA 4 PCI $141
TX97-X w/ Audio & 512k & SDRAM $179
TX97-XE w/ Audio & 512k $179
P2L97 P-II w/ 1 AGP; 2 ISA; 5 PCI $158
P2L97S P-II w/ 2940UW 1 AGP;4PCI; 2ISA . $249
P2L97DS Dual P-II w/ AGP & UW 4 PCI 2 ISA $390
ASUS 440BX 100MHz. $187

ABIT
LX6 PII motherboard w/AGP. $152
BX PII motherboard w/AGP. $189

Intel
Venus Pentium® Pro $145
Providence Dual P-Pro w/ 10-100, UW, Sound. $219
Atlanta P-II w/ AGP. $185
Atlanta P-II w/ AGP w/ Sound $199
SE 440BX. $197

CPU & MEMORY

Intel
P-150/166/200 . . . . . $96/109/160
MMX 166/200/233 . . . . . $109/152/189
P-II 233/266/300. . . . . $289/390/499
350/400. . . . . $615/895

AMD
K5 75/133/166 . . . . . $38/65/99
K6 w/MMX 166/200/233 . . . . . $98/105/119
K6 266/300, Low Voltage, Low Heat. . $219/289

CPU & MEMORY CONT.

Cyrix
6x86 166/200 . . . . . $59/65
6x86 MMX 166/200. . . . . $89/125

SIMMS
2x32 (8MB) FP/EDO/PARITY $16/17/21
4x32 (16MB) FP/EDO/PARITY $31/24/36
8x32 (32MB) FP/EDO/PARITY $49/48/51

DIMMS
2x64 (16MB) SDRAM/EDO/ECC $39/CALL
4x64 (32MB) SDRAM/EDO/ECC $56/CALL
8x64 (64MB) SDRAM/EDO/ECC $159/CALL
16x64 (128MB) SDRAM/EDO/ECC . . $299/CALL

VIDEO CARDS

Diamond
Stealth 3D-2000 w/ 2MB/4MB PCI $59/71
Stealth II S220 w/ Rendition and 4MB SGRAM $98
Viper V330 w/ 4MB PCI & AGP. $149
Monster 3D 3Dfx w/ 4MB EDO PCI $156

ATI
ALL-IN-WONDER 4MB Tuner/Capture PCI . . $198
AGP PRo 8MB $259
Xpert@Play 4MB/8MB PCI & AGP . . . $169/219
Xpert@Work 4MB/8MB PCI & AGP. . . $169/219

Matrox
Millennium II 4MB/8MB PCI & AGP . . $159/229
Mystique 220 4/8 PCI $129/199

VIDEO CARDS CONT.

Matrox
m3D add on board $89

Trident
ISA w/512K / PCI w/1MB $35/35

NETWORK CARDS

3Com
3c509 TP/COMBO ISA $79/89
3c900 TP/COMBO PCI $69/75
3c905 10/100 PCI. $65

Intel
10/100 PCI. $65

LAN Pro
ISA/PCI Combo $17/29

CD-ROM

NEC
24x SCSI $119

Toshiba
24x/32x EIDE. $69/89
15x SCSI $98
DVD Cinemaster $289

Teac
24x EIDE $75

CD-WRITER

Yamaha
CDRW 4001 4x6 int/ext $499/569

Phillips
CDR 6200S 2x6 int/ext. $445/495

HP
7200 IDE $389

Mitsubishi
CDRW 2x2x6 SCSI $489

REMOVABLE STORAGE

I-Omega
Zip 100 EIDE $89
Zip 100 SCSI int/ext. $135/139
Zip + 100 ext $195
Zip 100 Cartridges $12

HP
2.6GB 5GB Compressed $229

SCSI ADAPTERS

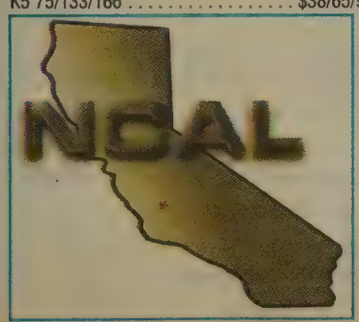
Adaptec
2940U Ultra SCSI $175
2940UW Ultra-Wide SCSI $185
3940UW Multi Channel $409
1522 ISA SCSI II w/Floppy $75
1520 ISA SCSI II w/o Floppy. $69

ASUS
SC-200 SCSI II req. ASUS mb. $69

PRINTERS

HP
Laser Jet 6LXI/PXI. $375/739
Laser Jet 4000T/4000. . . . . $1,319/1,139
Color Laser Jet 5 . . . . . $3,789
Desk Jet 820CXi $255
Desk Jet 870CXi $369
Desk Jet 1600C $1,285

Epson
Stylus 400/600/800. . . . . $189/225/315



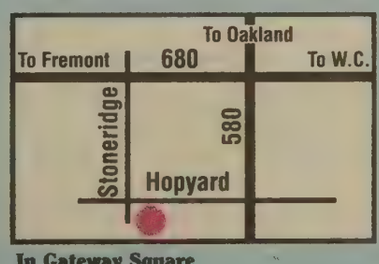
NCAL Computer Source

4825 Hopyard Rd. • Pleasanton, CA 94588

(510) 460-0580

FAX (510) 460-0591

www.ncal.ml.org **ncal@inreach.com**



In Gateway Square

Linux The Pilot!

New Dimensions In Portability

By Bennett Falk

Over the years, the UNIX community has developed some clever ways for its members to identify themselves. For example, anyone who thinks that "Live Free or Die" is just motto for the State of New Hampshire is probably not on the UNIX bus.

The UNIX community is an odd and sometimes secretive group, held together by a set of cultural values that happen to be embodied in a piece of software. In the UNIX community, UNIX is more than a piece of software. This is tricky territory, because the people who believe that UNIX is more than a piece of software are naturally suspicious of anyone who walks down the street loudly declaring "UNIX is more than a piece of software."

Over the years, the UNIX community has developed some clever ways for its members to identify themselves. For example, anyone who thinks that "Live Free or Die" is just motto for the State of New Hampshire is probably not on the UNIX bus.

The Jargon Dictionary credits Armando Stettner with the creation and distribution of fake New Hampshire license plates emblazoned with the UNIX name and the "Live Free or Die" motto.

In the late 1990s, if you want to know whether you're on the bus or off the bus, take this simple test. What is your reaction to this sentence?

"Linux has been ported to the Palm Pilot."

The three most typical reactions are: a euphoric grin, "No way!", and "Huh?"

If you're grinning euphorically, you're on the bus. If you said, "No way!", all I can say in response is, "Way." If you said, "Huh?", we need to do a little remedial euphoria training, and we'll start with the words Linux, port, and Pilot.

Linux

Linux is a free UNIX-like operating system that contains no UNIX™ source code. "UNIX-like" encompasses an almost bewildering range of features. Linux is a multi-user and multi-tasking network operating system. It faithfully reproduces the UNIX APIs. It relies on X Windows for its graphical user interface.

Linux was written from scratch by volunteer labor. It is maintained, extended, documented, and promoted largely by volunteers. There are some companies that sell Linux implementations, but what they really sell is support and packaging. If you paid someone money for Linux, the software you bought had better be easy to install and the vendor had better be able to answer your questions about it.

Linux is enormously popular with somewhere between five million and twenty million installations worldwide. Because it is free, no one is responsible for measuring its installed base, and chances are, no one (except Bill Gates or Scott McNealy) really cares how popular it is.

Unlike most commercial UNIX systems (which tend to a minimum requirement of 100MB of disk), Linux is very elastic. A full-blown Linux system with all the accessories has much the same disk requirements as commercial UNIX systems, but there are also functional Linux distributions as small as 3MB. Some enterprising folks have squeezed a bootable Linux file system onto a floppy disk.

Because it is so configurable, Linux has proven to be eminently portable. Porting is the process of adapting a piece of software written for one hardware platform to run on another. Portability was one of the original goals of the UNIX system (though as UNIX has gotten larger, that goal has receded over the horizon). The Linux community, however, has taken the idea of portability and run with it. Linux has been ported all over the personal computer universe and there are versions of Linux for Sun SPARC and Silicon Graphics hardware.

Pilot

And of course, there is the Palm Pilot. The Palm Pilot is the first "Personal Digital Assistant" to catch on in a big way. The Palm Pilot is a small computer that fits in a shirt pocket, has about a dozen built-in applications and utilities in ROM, and runs for months on a pair of AAA batteries. Early models of the Pilot had 128K of memory. The recently released Palm III comes with 2MB of memory.

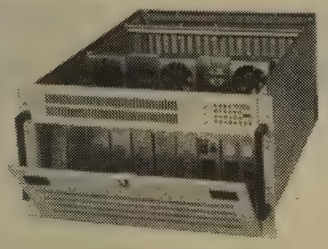
The Pilot has sparked a furious amount of development activity: there are Web browsers

continued on page 74

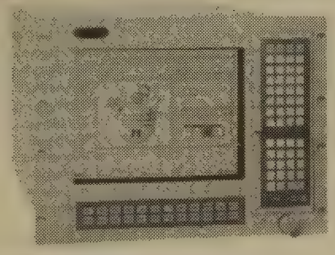
Helping with Your

Industrial PC Systems Solutions

Since 1990

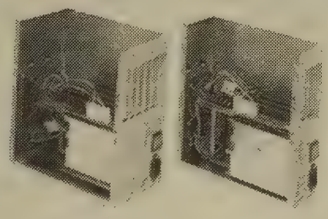


- 6U Rackmount Chassis
- 20-Slot ISA/PCI BP Option: 10+10, 5+5+5+5
- Redundant Power Supply
- 8 Drive Bays

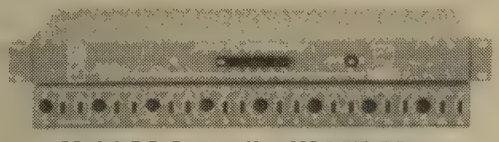


- 19" Industrial Rackmount Workstation
- Built-in 14" or 15" Color SVGA Monitor (or 9.4/10.4/14" Color LCD)
- PS Universal 65-265 VAC Input or DC/+12,+24, -48V Input
- 4/8/10/12/14 Slot ISA/PCI Backplane Option

- 2U Height (3.5") Chassis
- 4 Drive Bays, 1-CD, 1-FD, 2-HD
- PS AC Universal, or DC/+12, +24, -48V
- 5-Slots
  Type 1: 2-PCI, 2-ISA, 1-CPU (PICMG)
  Type 2: 5-ISA
  Type 3: 4-PCI, 1-CPU (PICMG)



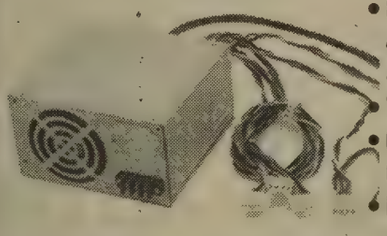
- Compact Size
- Wall Mount, Rackmount or Stand-Alone Chassis
- 3-slot/5-Slot
- Power Supply: AC Universal or DC/+12, +24, -48V



- Multi-PC Controller VGA/KB/Mouse (Audio/Voice Option)
- Auto Scan or Manual Control
- 4/6/8/16 Ports Available

SBC-Pentium® II

- Full Line of Single Board Computers
- 486-Pentium® Pro CPU
- Full line of BP
- 3-20 Slots ISA/PCI Segmented, 6+8, 10+10, 5+5+5+5 and others



- 85-265 VAC, -48VDC, +24VDC, +12VDC Input
- 70W-350W Output
- 0-55 Degree Celsius Operating
- MTBF>20 Years

ARISE COMPUTER INC.

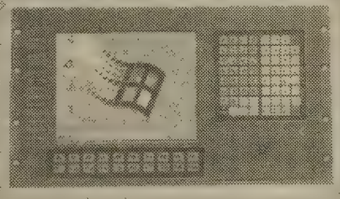
453 Ravendale Drive, Suite #F
Mountain View, CA 94043
Tel: (650) 428-0868 / Fax: (650)428-0866
http://www.arisecomputer.com
E-mail: allen@arisecomputer.com

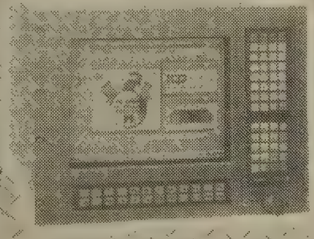
MasterCard VISA

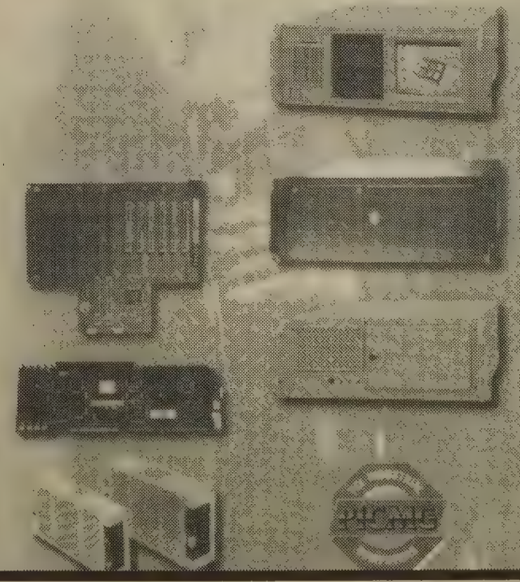
PC/104 PC/104 COMPATIBLE

ARISE Vol. 7. 2

Industrial Computer Products







- 486-Pentium™ ISA/PCI SBC
- Industrial AC/DC Input Power Supply
- ISA/PCI Backplane
- Industrial Chassis

CE Platform Compliant

TRUECOMP AMERICA COMPUTER CENTER

Tired of Lousy Service?

Lifetime Labor and Lifetime Technical Support

Monthly Special

Pentium 166MHz MMX System W/15" Monitor

- Intel Chipset ATX Motherboard (Gateway)
- 512K Pipeline Burst Cache
- Intel Pentium 166MHz MMX Processor
- 32MB SDRAM 168-pin 10ns
- 2.1 GB EIDE Hard Drive (PIO Mode 4)
- 24X Internal CD ROM Drive
- 56K Flex Internal Fax/Voice/Modem
- 1.44 MB Floppy Drive 3.5"
- ATI 3D Rage II w/2MB SDRAM (built-in)
- Creative Lab Sound Blaster 16 (built-in)
- Premium Medium ATX Tower Case w/PS (eve)
- Easy PhotoDrive Scanner/STORM Technology Internal
- 15" SVGA .28 NI Monitor
- Logitech 3-button PS/2 Mouse
- Win95 104 Enhanced PS/2 Keyboard
- MS Windows 95 OSR2 w/USB Support CD & Manual
- 100watts Stereo Amplified Speakers Set
- *Free TruePAK Games & Productivity CD Pack*

All these Features for ONLY

$879

Entry MMX Multimedia

- Asus SP97-V Super TX PCI Motherboard
- 512K Pipeline Burst L2 Cache
- Intel Pentium 166MHz Processor
- 16MB EDO 72-pin
- 2.1GB EIDE Hard Drive
- 24X CD ROM Internal Drive
- 33.6K Internal Voice/Fax/Modem
- Built-in Graphic Accelerator (1-4MB)
- Sound Blaster Compatible Sound Card
- Mini AT Tower Case w/Power Supply
- MS Compatible Serial Mouse
- Windows 95 Enhanced Keyboard
- MS Windows 95 OSR2 w/USB Support CD & Manual
- Grolier 98 & Games Pack

All these Features for ONLY

$549

Pentium II Basic Multimedia

- Intel 440LX Chipset AGP Motherboard
- Pentium II 233MHz Processor
- 32MB SDRAM 168-pin 10ns
- 4.3GB Ultra DMA IDE Hard Drive
- Yamaha 16-bit Stereo Sound Card
- 32X IDE CD ROM Drive
- 56K Internal Fax/Voice/Modem
- 1.44 MB Floppy Drive 3.5"
- Diamond Viper V330 4MB SGRAM AGP
- Premium Medium ATX Tower Case w/PS (eve)
- Logitech Wheel/Mouse Combo
- Fujitsu 104S Enhanced PS/2 Keyboard
- MS Windows 95 OSR2 w/USB Support CD & Manual
- ALTEC Lansing ACS-43 Stereo Amplified Speakers

All these Features for ONLY

$999

Pentium II Executive Multimedia

- Intel Seattle 440BX 100MHz AGP Motherboard
- Pentium II 350MHz (100MHz) MMX Processor
- 64MB PC100 SDRAM 168-pin 7ns
- 6.4GB Ultra DMA IDE Hard Drive
- Yahama Stereo ISA Sound Card Built-in
- Toshiba 32X Slot Load IDE CD ROM
- USR Sportster 56K Internal Voice/Fax/Modem V.90
- 1.44MB Floppy Drive 3.5"
- Iomega 100MB Internal Zip Drive
- Diamond Fire GL Pro 1000 8MB AGP SVGA
- Premium Medium ATX Tower Case w/PS (eve)
- MS Ergonomic PS/2 Mouse
- MS Ergonomic Elite Keyboard
- MS Windows 95 OSR2 w/USB Support CD & Manual
- ALTEC Lansing ACS-45 Stereo Amplified Speakers w/subwoofer

All these Features for ONLY

$1899

K6 MMX Enhanced Multimedia

- Tyan Trinity VIA Chipset Motherboard (ATX)
- 512K Pipeline Burst Cache
- AMD K6-200 MMX Enhanced Processor
- CPU Heat Sink & Ball Bearing Cooling Fan
- 32MB EDO SIMM Memory 60ns
- 3.2GB Ultra DMA IDE Hard Drive
- 32X Internal CD ROM
- 1.44MB Floppy Drive 3.5"
- New! I740 3D SVGA w/8MB SGRAM AGP
- New! A3D PCI Sound Card
- 56K Internal Fax/Voice/Modem
- Premium Medium ATX Tower Case w/UL Power Supply
- Logitech MouseMan Pro Cordless Combo
- Maxi Switch 104 Enhanced PS/2 Keyboard
- MS Windows 95 OSR2 w/USB Support CD & Manual
- Yamaha YST-MT Stereo Speakers Set
- *Free TruePAK Games & Productivity CD Pack*

All these Features for ONLY

$879

Dual Pentium II MMX Server

- Asus Dual Pentium II AGP Motherboard
- (2) Pentium II 233MHz MMX Processor
- 128MB ECC SDRAM 168-pin 10ns
- Built-in Adaptec 2940UW SCSI Controller
- Toshiba 32X SCSI-2 Internal CD ROM
- 1.44MB Floppy Drive 3.5"
- IBM 4.3GB UltraWide SCSI Hard Drive
- MGA Matrox Productiva *MB SGRAM AGP
- 3Com Etherlink PCI w/WOL NIC
- Premium Medium ATX Tower Case w/PS (SL-M)
- Logitech 3-button PS/2 Mouse
- Key Tronic 104 Enhanced PS/2Keyboard
- MS Windows NT Server 4.0 w/5 User Licenses

All these Features for ONLY

$2299

IBM Intellistation Z Pro

- Intel Pentium Pro 200MHz Processor
- 256K Pipeline Burst Cache
- Adaptec 2940UW Controller Card - Ultra Wide
- 64MB DIMM 168-pin
- 4.3GB UltraWide Hard Drive
- 16X EIDE Internal CD ROM Drive
- Crystal Chipset Sound Card
- 1.44MB Floppy Drive 3.5"
- MGA Matrox Millennium w/4MB SGRAM
- Mini Tower Case w/PS
- Logitech 3-button PS/2 Mouse
- IBM 104 Keyboard (Genuine)
- MS Windows NT WS 4.0 CD & Manual
- 1 Year On-site / 3 year factory warranty

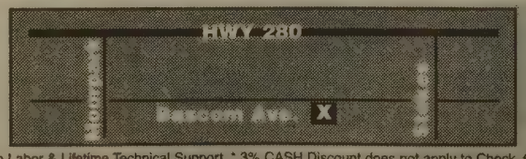
All these Features for ONLY

$1199

Free Local Delivery Available. Business, Corporations, Government and Education please call our Corporate Sales Department for special Attention.

TRUECOMP AMERICA COMPUTER CENTER

1264 So. Bascom Ave.
San Jose, CA 95128
Mon-Fri 9:30AM-7:00PM Sat 10:00AM-5:00PM
Closed Sundays & Holidays



Terms & Conditions: *2-Year Limited Parts-Only System Warranty. *1-Year Monitor Warranty(original packaging material requred for RMA). * Lifetime Labor & Lifetime Technical Support. * 3% CASH Discount does not apply to Check, Cashiers Check, or Money Order. * Not responsible for typographical errors. Please call for Unlisted items. All Logo's and Trademarks are Property of Their respective companies. Prices subject to change without notice. Prices do not include taxes and shipping charges.

...Call Truecomp and See the Difference.

PARTS & ACCESSORIES

MONITORS

NEC A500 17" .28DP
1280x1024 ..... $273.90
NEC A700 17" .28DP
1280x1024 ..... $489.50
NEC E500 15" .25DP
1280x1024 ..... $313.50
NEC E700 17" .25DP
1280x1024 ..... $587.40
NEC P1150 21"
1800x1400 ..... $1226.50
Sampo 15" .28 NI
1280x1024 (KM-511L) $166.75
Sampo 17" .26 NI
1600x1200 (KM-711ST) $368.00
Sampo 17" .28 NI
1280x1024 (KM-711L) $284.05
Sony 100GS 15" .25DP
1280x1024 ..... $352.00
Sony 200ES 17" .25DP
1280x1024 ..... $557.70
Sony 200GS 17" .25DP
1280x1024 ..... $643.50
Televideo 15" .28 NI
1280x1024 (SV100) $178.25
Televideo 17" .25 NI
1600x1200 (SVP260) $439.00
Televideo 17" .28 NI
1280x1024 (SV200) $293.25
Televideo 21" .28 AG NI
1600x1024 (SVP350) $1199.00
Viewsonic E641 14" .28DP
1024x768 ..... $165.60
Viewsonic E655 15" .28DP
1024x768 ..... $248.40
Viewsonic G771 17".27DP
1280x1024 ..... $448.50
Viewsonic G790 19" .26DP
1280x1024 ..... $793.10
Viewsonic GS771 17" .27DP
1024x1024 ..... $473.80
Viewsonic P655 15" .27DP
1280x1024 ..... $271.40
Viewsonic P775 17" .25DP
1600x1200 ..... $555.45
Viewsonic P810 21" .25
1800x1440 ..... $1274.90
Viewsonic PS790 19" .25DP
1600x1200 ..... $839.30
Viewsonic PT775 15" .25DP
1600x1200 ..... $710.70

PRINTERS

Epson 600 Stylus Color $262.90
Epson 800 Stylus Color $341.00
Epson Stylus Pro ..... CALL
HP Deskjet 672C $199.00
HP Deskjet 694C $299.00
HP Deskjet 720C $349.00
HP Deskjet 1000Cse $399.00
HP Officejet Pro 1150Cse ..... CALL
HP Officejet 600 4-in-1 ..... $499.00
HP Officejet 630 4-in-1 ..... $599.00

MODEMS

Generic Rockwell 33.6k
fax/voice/modem $39.00
Generic Rockwell 56k Flex $59.00
MiroMedia Online 33.6k
fax/voice/modem+SC $28.00
Multiwave 56k Flex
fax/voice/modem $39.00
SupraExpress 33.6SP Retail $59.00
SupraMax 56k v.90 PCI $75.00
SupraMax 56k v.90 SP PCI $85.00
SupraExpress 56I PC v.90 Retail $95.00
SupraExpress 56I PC v.90
SP Retail $115.00
SupraSonic II 1125 v.90. ..... $189.00
USR Sportster 56k
fax/voice/modem $89.00
USR Sportster 56k
fax/voice/modem v.90. ..... $139.00

NETWORKING

3Com 3C509TPO Etherlink III
ISA. $65.00
3Com 3C900TPO Etherlink III
PCI. $75.00
Intel Pro/10+ Combo ISA $70.00
Intel Pro/10+ TPO ISA $65.00
Intel Pro 100 PCI $79.00
NE2000 compatible RJ45/Coax . $12.00
Realtek NE2000 ISA. $15.00
Realtek NE2000 PCI. $19.00
Kingston ISA $20.00
Kingston PCI $25.00

CONTROLLER

Adaptec 2940U2W w/Kit. ..... CALL
Adaptec 2940UW w/Kit OEM .. $189.75
Adaptec 3940U2 ..... CALL
Diamond FirePort 20 Retail Kit .. $72.45
Diamond FirePort 40 Dual $184.00
Diamond FirePort 40 Retail Kit . $139.15
FC-20 Tape Backup Controller .. $63.25
DTC 2nd Printer Port $23.75
SIIG Printer Port $25.00

TAPE BACKUP

Exabyte Eagle TR3 3.2GB int... $145.00
HP Clorado T3000 ..... $201.25
HP T4e TR-4 4/8GB External .. $459.00
HP T4I TR-4 4/8GB Internal ... $359.00
Iomega DittoMax 7GB int. $195.00
Iomega ZIP 100MB Ext. pas... $139.00
Iomega ZIP 100MB IDE int. $90.00
Jaz 1GB Ext Retail $299.00
Jaz 1GB Ext (oem) w/kit. $250.00
Jaz 1GB Int.Retail w/kit $199.00
Jaz 1GB Int. (rebur) $125.00
Jaz 1GB Int Retail $279.00

VGA

Diamond
Stealth II S220 4MB SGRAM ... $88.80
Stealth 3D 2000 Pro 2/4MB EDO. ... $50.40
Stealth 3D 3000 4MB VRAM. $99.00
Stealth 3D 4000 4MB SGRAM AGP.. $52.00
Viper V330 4MB SGRAMPCI/AGP... $95.00
FireGL 1000 Pro 8MB AGP. $170.00
Monster 3D 4MB PCI. $110.00
Monster 3D II 8MB PCI $199.00
Monster 3D II 12MB PCI $265.00

MGA MATROX
Mystique 2MB PCI. $79.00
Mystique 4MB PCI. $99.00
Mystique 220 4MB PCI oem ... $68.00
Millenium 4MB PCI $89.00
Millenium 8MB PCI $149.00
Millenium II 4MB PCI. $118.00
Millenium II 8MB PCI. $208.00
Millenium II 4MB AGP $118.00
Millenium II 8MB PCI. $208.00
Rainbow Runner Studio
for Mystic. $158.00
Rainbow Runner Studio
for Millenium $209.00
Productiva G100 4MB oem $61.20
Productiva G100 8MB oem $75.60
Productiva G100 8MB Retail ... $88.80

ATI
3D Xpression + 4MB $60.00
3D Xpress + PC2TV 4MB oem .. $70.80
All in Wonder 4MB PCI $180.00
All in Wonder Pro 8MB PCI ... $270.00
All in Wonder Pro 8MB AGP... $288.00
Expert@Play 4MB PCI oem $94.80
Expert@Play 8MB PCI oem ... $121.20
Expert@Play 4MB AGP oem.... $99.60
Expert@Play 8MB AGP oem... $121.20
Xpert@Work 4MB PCI $79.20
Xpert@Work 4MB AGP $81.60
Xpert@Work 8MB PCI $104.40
Xpert@Work 8MB AGP $104.40

Number NINE
Revolution 3D 4MB WRAM PCI $111.60
Revolution 3D 4MB WRAM AGP$111.60
Revolution 3D 8MB WRAM PCI $175.20
Revolution 3D 8MB WRAM AGP$175.20
Reality 334 4MB PCI $124.80
Reality 334 4MB AGP $86.40

MOTHERBOARD

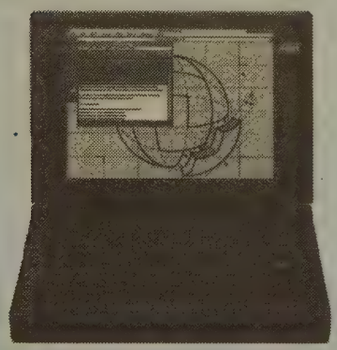
Abit
PX5 430TX PCI 512K. $79.00
TX5 430TX PCI 512K. $85.00
AH-6 440LX AGP. $99.00
LX-6 440LX AGP $117.00
BX-6 440LX AGP $165.00

ASUS
SP97-V SuperTX 512K. $89.00
TX-P4 430TX 512K ATX. $115.00
TX97-L 430TX 512K $125.00
TX97-L 430TX 512K ATX $125.00
P2L97 440LX w/AGP $135.00
P2L97-S 440LX w/SCSI AGP .. $241.00
P2B98 440BX w/AGP. $185.00

FIC
PA-2007 512K. $95.00
PA-2012 1MB $115.00
VA-503+512K $125.00

Shuttle
SpaceWalker 440LX. $115.00

DFI



DFI 8120 NOTEBOOK

- Intel Pentium 233MHz MMX
- 12.1" Active Matrix display
- 32MB EDO memory
- 20X CD ROM DRIVE
- 2MB Video Memory
- Li-ON Battery
- Carry Bag
- 16-bit sound card
- 56k Flex PCMCIA Modem
- 1-year on-site

$1899

Trackman
Logitech Trackman Marble
$39

Diamond Fire
GL Pro 1000 8MB AGP
$165

ASUS
DX97-X 512K ATX
$115

MiroOnline
33.6K + Sound
$27

Industrial Rack Mount Systems

- High Quality Server Cases
- Industrial Rackmount Cases
- Backplane Boards
- CPU Cards
- Raid Systems
- Rackmount Monitors & KB

Custom Systems Available

Built to order to meet any of your specifications.
Call us today for low pricing and ask about our corporate, business and tudent program.

Corporate, Education and Government PO's Welcome

(408) 292-8889 Fax: (408) 292-6199
Tech: (408) 292-6194

DISCOVER VISA MasterCard

www.truecomp.com

TRUECOMP AMERICA COMPUTER CENTER

continued from page 70

and email readers and games and what not for the Palm Pilot. The intensity of Pilot development is such that there are software Pilot emulators for Windows and X Windows to allow developers to debug and test programs without the hassle of repeatedly moving the partially debugged program to a real Palm Pilot. The Copilot emulator, which provides a realistic image (complete with backlit display) of the Pilot, is also a pretty good utility to have on your PC desktop.

The Pilot has also generated an accessory industry that produces things like memory cards. TRG recently announced a "Super Pilot" memory card that packs 8MB of RAM into the Pilot.

New Vistas

It is these hardware accessories that begin to make life more interesting. The TRG products use "flash" memory where the regular Pilot has ROM. Flash memory is writable, and consequently with a Pilot that has been enhanced with a TRG memory board, it's possible to do creative things with the memory space in which the Pilot's operating system resides.

Kenneth Albanowski and D. Jeff Dionne, the programming team of the Silver Hammer Group, Ltd., have done something creative with that space: they've produced a version of the Linux kernel (Linux version 2.033) that runs on the Motorola "Dragonball" CPU that the Pilot uses.

This effort is known as "The Linux Microcontroller Project" and its Linux port goes under the name "uCLinux" ("u" being a tortured representation of the Greek mu). The Palm Pilot port is one of a number of attempts to move Linux to hardware that does not have a Memory Management Unit (MMU). One imagines that the lack of an MMU might not be quite so critical if the hardware in question had at least a disk drive.

Running the Linux kernel on the Palm Pilot requires some preparation. First, of course, the Pilot must be outfitted with a TRG memory board that provides at least 2MB of RAM. You'll also need to download the Linux ROM image from the Silver Hammer Group's Web site at Ryerson Polytechnic in Ontario (*http://ryeham.ee.ryerson.ca/uClinux/*). And you'll need TRG's utilities to manage flash memory. These are available for download from the TRG Web site: *www.trgnet.com/ftp/linux10.zip* . The utilities are DOS programs, so it is assumed that you have a PC with a serial port that the Pilot can be connected to.

Before trying to load the Linux kernel, it's wise to dump the Palm OS to an external file that can be reloaded into the Pilot later. 3Com, the maker of the Pilot, has recently made debug versions of the Pilot ROM available in the developers' area of its Web site, but it's still a good idea to save an image of the OS you started with.

After an image of the Palm OS has been saved, TRG's bootloader utility can be used to install the Linux kernel (vmlinux) into flash memory. Once loaded, the Linux kernel will boot when the Pilot is reset.

For those who don't want to go to the expense of buying and customizing an actual Palm Pilot, the Linux Microcontroller Project also makes available a modified version of Xcopilot, the Palm Pilot emulator for X Windows. The modifications allow the vmlinux ROM to be loaded into and run by the emulator.

continued on page 82

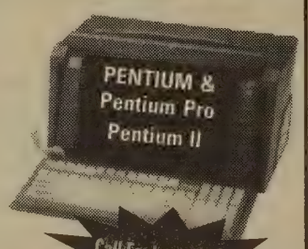
6 Reasons Why You'll Want A Portable Instead Of A Laptop or Desktop

- Higher & Clearer Screen Resolution Than A Laptop (Up To 1024x768)!
- Expandability Up To 8 Expansion Slots To Customize Your System, As Good As A Desktop!
- Much Sturdier Construction & More Reliable Than a Laptop!
- Portable Weighs Only 20lbs Easy to Carry With You!
- Easier & Less Expensive To Upgrade & Repair Than A Laptop!
- Takes A Lot Less Deskspace Than a Desktop, Almost As Little Space as a Laptop!

Visit Our Web Site! www.ssengineering.com

COLOR/B&W LUNCHBOX PORTABLE
- 4 Drive Bays
- 8 Expansion Slots
- 800x600 Res TFT Display
- 10.4" Active Color LCD
- 2 MB LCD SVGA Card
- Super Durable ABS Case
- Supports Simultaneous Display
- Optional Built-In Multimedia Speakers

USE YOUR NEW PORTABLE FOR:
- PLAIN PORTABILITY
- MULTIMEDIA
- BACK-UP SERVER
- PORTABLE NT SERVER
- PORTABLE FILE SERVER
- SPECIAL APPLICATION w/CUSTOM ADD-ON CARD
- TEST EQUIPMENT
- MEDICAL EQUIPMENT
- NEW PRODUCT DEMOS



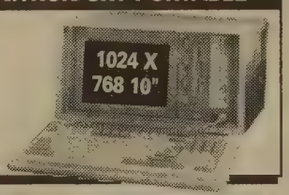
Call For Latest Prices & Custom Configurations

PENTIUM II 233/266/300 PENTIUM 100-200MHz
PENTIUM 166/200/233 MMX PENTIUM PRO 180-200MHz

RACKMOUNT INDUSTRIAL PC
- 19" 5U Rackmount
- 8 Expansion Slots
- 10" SVGA SONY Trinitron Color Monitor
- 3 Drive Bays
- 250 W PS 100/200v
- Security Access Door
- Color Coded 12 Function Key Pad Available
- Slide Rail
- Vibration Clamps

CALL FOR PRICES & CUSTOM CONFIGURATIONS

SVGA SONY TRINITRON CRT PORTABLE
- 10" Color Flat Screen
- 4 MB RAM (Exp 64 MB)
- 540 MB IDE Hard Drive
- TEAC 1.44 MB Floppy
- 2 Serial/Parallel Ports
- SVGA Card w/1 MB
- 6 Expansion Slots
- Deluxe Carrying Bag

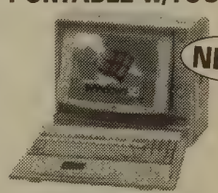


DESKTOP MONTHLY SPECIAL

PENTIUM PRO® 180/200 MHz ..... *CALL
PENTIUM®/PENTIUM®MMX/100/120/133/150/166/200 MHz ..... CALL
Pentium II 233/266/300 ..... CALL

All Systems Above Include:
- 32MB & UP RAM
- 3GB IDE Hard Drive & Up
- Teac 1.44 MB Floppy Drive
- SVGA Monitor (1280x1024, 28 dpi)
- SVGA Video Card w/2 MB
- IDE CD-ROM Drive
- Sound Card
- Enhanced 104 Keyboard
- Mini Tower Case
- 3-Button Mouse

NEW 12.1" TFT ACTIVE MATRIX COLOR LCD PORTABLE w/TOUCH PAD



- 7 Slots, 4 Drive Bays
- 4 MB Video Card
- 800x600 or 1024x768 Res.
- AT/Baby AT & ATX Motherboard Platform
- Built-In Touchpad Mouse
- Built-In Multimedia Speakers
- Super Durable ABS Case

ALL-IN-ONE LAN PC INTERNET WORKSTATION

Fully Loaded w/ Your Choice of CPU & HDD w/ 14" LCD

MONITORS
- SONY 10" TRINITRON COLOR DESKTOP MONITOR
- .26 DOT PITCH W/CARRYING HANDLE

COLOR LCD TFT NEW!!
- 13.3" & UP LCD Screen 1024x768 Res.
- AT/Baby AT & ATX Motherboard Platform
- VGA Conversion board to use standard 3D Video Card

Prices subject to change w/o notice. Prices reflect cash discount.

DEALER PRICING & QUANTITY PRICING AVAILABLE

STORAGE SYSTEM ENGINEERING SERVICE

3350 Scott Blvd., Building 19, Suite 1902
(near Bowers Ave.) Santa Clara, CA 95054

408-727-6040
FAX: 408-727-6042
Hours: 10am-6:30pm M-F
www.ssengineering.com

Your Source For Reliable Computers & Peripherals Since 1983

HSC Electronic Supply

Serving Silicon Valley since 1964!

...brings you a potpourri of high-tech goodies for the techno-tinkerer!
For thirty years we have been your source for Silicon Valley exotica!

Leftover Apple Goodies...

Macintosh IIci System unit, used
- Includes 8 MB RAM, 80 MB hard drive, cache card
- Does not include monitor, mouse or keyboard
- Note, some available with larger hard drives at higher price

HSC#17394 $79.00

Macintosh Keyboard (used)
- Macintosh Extended Keyboard II (Mac II series), no cable

HSC#17386 $24.95

Macintosh Keyboard (used)
- Apple Design Keyboard (Performa Series)

HSC#96382 $32.50

Macintosh Mouse
- New in bag, older square-cornered mouse

HSC#96380 $12.50

Sound Card Specials!

Diamond Multimedia Wavetable Sound Card
- Multi-interface for CD/ROM (Sony, Mitsumi, Pana., IDE)
- Full featured sound capability, 2MB Wavetable, 24 voice
- Line-in, Line-out, Mic., Speaker & MIDI/Game jacks
- New OEM pack, instruction sheet, 90-day HSC warranty

HSC#17142 **New - Lower Price!!** $17.95

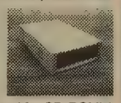
Media Vision PCMCIA Sound Card
- Great for Portables, Laptops with PCMCIA Slot
- External pod has joystick port, mic. input, line in & line out jacks, volume control.
- Installation software, instructions included
- Windows 3.x, Windows 95 compatible
- New in OEM packaging (no box), 90-day HSC warranty
- We had these before at $39.95 and they went fast!

HSC#17036 $29.95

External SCSI Drive Cases

- Bargain case for 5.25" drives, brand new!
- 7" x 4.5" x 10.5" overall size
- 50-pin SCSI connectors
- SCSI ID switch
- 65W Power supply (lots of power for hard drives, etc.)
- Fan-cooled, uses standard IEC Power cord (not included)

HSC# 17130 $39.95



- High quality low profile case for 5.25" drives, brand new!
- 7" x 2.25" x 11" overall size
- 50-pin SCSI connectors, RCA Audio connectors
- SCSI ID switch, termination switch
- *Tiny* 12W Power Supply (5VDC @ 1.4A, 12VDC @ .4A, probably only good for CD-ROM's)
- Fan-cooled, uses standard IEC Power cord (not included)

HSC# 17357 $29.95

- High quality case for 3.5" drives, brand new!
- 6.5" x 2.5" x 10" overall size, good for tape drives!
- 50-pin SCSI connectors, SCSI ID switch
- Drive bay snaps out for easy access to cables
- 40W Power Supply (5VDC @ 2A, 12VDC @ 2.5A)
- Fan-cooled, uses standard IEC Power cord (not included)

HSC# 17356 $24.95

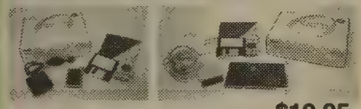
House that Equipment!

- Bargain on used, knee high 19" rack cabinets!
- 29.5" tall, with room for 21" of vertical instrument height
- 23.25" wide, and 30" front-to-back, textured black finish
- Made by AMCO Engineering
- Units are used, but in good shape
- Best if you pick up (cannot go UPS)
- Last time we had these at $149.00, and they went fast! Quantity discounts available.

HSC# 17069 $99.00

Infrared Connections!

- IBM "Options" series ISA-Bus and PCMCIA card adaptors will add industry standard infrared communications capability to your desktop PC (with ISA slots) or notebook computer! (Win95 instructions available on our website)
- Allows wireless connection to compatible notebooks, workstations, printers, and other peripherals supporting the Infrared Data Association (IrDA) standard.
- Also will emulate a COM port for cable-less hook-ups
- Communicates up to 115KBps, or up to 1.152MBps with the included TranXit Software.
- Operates over distances up to 3 meters (10 ft.)
- Includes Card, transceiver module, driver disk & book
- Both styles new in box, 90-day warranty



HSC#16483 PCMCIA Version $19.95
HSC#16813 ISA-Bus Version $19.95
Or a package deal...get both for $29.95

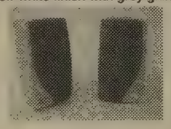
Super Sounding Speakers!

Tired of the cheesy sound coming from those give-away speakers in your multimedia kit? Try upgrading to these sonic wonders...you'll have to hear them to appreciate the difference these will make without blowing your budget!

GNT2500 2-way Bass-Reflex speakers
- 3.5" woofer, 1" piezo tweeter
- 15W built-in amplifiers, 80W peak, 5.4W RMS
- 40 - 20,000 Hz, built-in SRS 3-D stereo
- Measure approx. 3.75" x 6.125" x 9.25" tall
- AC adaptor, audio cables included
- On-off switch, 3-D switch, tone & volume controls
- Attractive off-white finish with grey grille-cloth

HSC#16670 $29.95

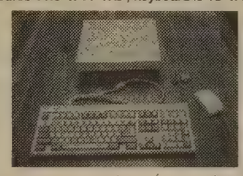
GNT3000 3-way Bass-Reflex speakers
- 4" woofer, 2" midrange, 1" piezo tweeter
- 23W built-in amplifiers, 120W peak, 20W RMS
- 20 - 20,000 Hz, similar to GNT3500, but no SRS 3-D
- Measure approx. 6.25" x 6.5" x 9.75" tall
- AC adaptor, audio cables included
- On-off switch, bass, treble & volume controls
- Attractive off-white finish with grey grille-cloth



HSC#17085 $39.95

X-Windows Terminal!

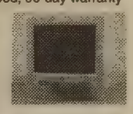
- Tiny Axil/Hyundai X/11C smart terminal has big features!
- Connect to Ethernet (Coax or AUI), SLIP, or both!
- Built-in 10Base2 transceiver, 10Base5 AUI interface
- Uses a variety of protocols, TCP/IP, SLIP, TELNET, RARP, BOOTP, XDMCP, or PPP
- Comprehensive self-test and help menus for setup
- Requires 63.775KHz Horizontal, 67.9Hz Vertical (workstation-type) monitor, resolution is 1152 x 900
- RAM can be upgraded to 16MB (4MB SIMM included)
- New in box, includes 101-key keyboard, mouse, manual
- Measures 11.5" x 11" x 2", keyboard is 18" x 7"



HSC#17213 $149.95

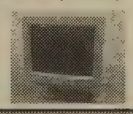
Monitor Mega-Deal!

- Just in! Two types of used, high-quality monitors!
- Sony CPD-1320 VGA Monitor -- Genuine Trinitron!
- 14" Super-Fine Pitch (tm) Trinitron tube, 13.24" view area
- Supports 640 x 480 (VGA), 60/70Hz res. (not SVGA)
- Ultra-sharp .25 mm dot pitch for crisp image edges
- Used, tested good, 90-day warranty



HSC#17395 $69.00

- Apple Performa Plus Display
- 640 x 480, 67Hz color display, .29 mm dot pitch
- 14" picture tube, 11.63" viewable area, tilt/swivel stand
- Used, tested good, 90-day warranty



HSC#17396 $139.00

Briefcase of Goodies!

- These handsome hardshell cases were used to carry a laptop-computer estimating system (laptop not included)
- They were used with a Compaq LTE laptop, and provided a SCSI port for a CD-ROM drive with battery back-up
- Large Nicad pack has 10 D-size Sanyo Cadnica cells.
- Built-in 19VDC power supply for battery charging
- Tiny piggy-back PC board seems to be a SCSI interface
- Case measures 18" x 14" x 7", with several compartments
- SCSI II to CEN50 SCSI cable, many great parts inside!
- Buy either the whole assembly, or just the parts you want!
- Not guaranteed to function with laptops -- for parts only!

HSC#17180 **Complete Laptop Case** $49.95
HSC#17182 **Empty Hardshell Case** $29.95
HSC#17181 **Nicad Pack, 12.5VDC, 5AH** $17.50
HSC#17179 **SCSI II Cable, 1 ft. long** $12.50

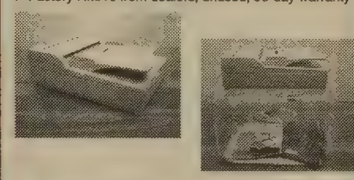
Little Pump That Could!

- Tiny Gast Vacuum/Pressure diaphragm pump
- Model MOA-V112-AE -- oil-less design means clean air!
- Measures 7" long, 3.375" dia., 4.75" tall
- 115 VAC, new in box with installation & parts diagram

HSC#17360 $74.95

HP ScanJet Special

- Wow! HP ScanJet 3P flat-bed greyscale scanners at $59!
- Complete with stand, SCSI adapter, cables, and optional document feeder, at an unbelievable price!
- SCSI Interface, will work with Mac or PC
- 300dpi resolution (native mode), 1200dpi with dithering
- PC or Mac drivers to work with your scanning program
- Dealer display models & shelf stock returns (boxes may be opened, but scanners are unused)
- Optional 20-page feeder can be installed in place of cover
- Scan rate of 10 seconds for letter-size page
- Factory RMA's from dealers, unused, 90-day warranty



HSC#17392 $59.00

Hand-held UV Lamp

- "Derma-spec" lamp was made for Avon products to examine the face for "problem" cosmetic areas!
- Works fine for counterfeit bill & credit card detection, minerology, fluorescent art effects, etc.
- We wouldn't use these on our faces for too long...

HSC#17383 $12.95

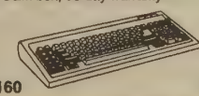
PCMCIA GPS Card

Trimble Mobile GPS Gold Card
- Turn your notebook into a GPS locator!
- Receiver is PCMCIA Type I card
- Includes roof or panel-mount antenna with 15' cable
- Trimble Mobile GPS software & instructions included
- Software gives coordinates, not maps
- New, OEM pack, 90-day warranty

$149.00

Parallel-Port Keyboard!

- Perfect for notebook computers, laptops, palm-tops, etc.
- Full-size 101 keyboard by ALPS, model LPT 101
- Includes manual, installation diskette
- New in OEM box, 90-day warranty



HSC#17160 $49.95

Rugged Mike & Speaker!

- Extra-heavy duty hand-held microphone & enclosed speaker for extreme environmental use
- Made by GE for Ericsson EDACS "Orion" mobile radios
- Easily modifiable for your own use (ham, CB, etc.)
- Brand new in box, with custom Ericsson power cable

HSC#17172 $29.95

Quick, Cheap, Easy IDE!

- What more could you want in an IDE controller?
- Creative Technology CT1871 Plug and Play card
- Perfect for CD-ROM's, other non-bootable SCSI devices
- 16 bit short ISA card has minimum parts count
- Supports up to two CD-ROM drives
- All settings are PnP settable, supports all ATAPI drives
- New, OEM bag with spec. sheet, 90-day warranty

HSC#17358 $3.95

Visit HSC's Website!

- Pay us a virtual visit on the World Wide Web!
- Simply point your browser to *http://www.halted.com*
- Site is constantly being revised, please visit often!
- Check out the amazing "Gizmo of the Week" feature!

HSC Catalog online!

- That's right, get HSC's catalog on the World-Wide Web!
- Simply go to www.halted.com and follow the big red link.
- Adobe .PDF files are available for download and viewing.
- Or drop on by and pick one up...we'd love to see you!

Halted specialties co. HSC Electronic Supply

Toll Free (Orders Only) 1-800-4 HALTED (1-800-442-5833)
Internet World Wide Web: http://www.halted.com
3500 Ryder St., Santa Clara, CA 95051 (408) 732-1573 -or-
4837 Amber Ln., Sacramento, CA 95841 (916) 338-2545 *FAX your orders to:*
5681 Redwood Dr., Rohnert Park, CA 94928 (707) 585-7344 *(408) 732-6428*

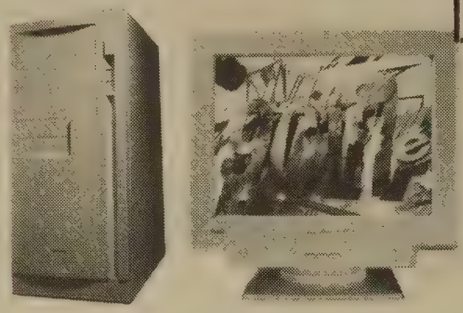
Terms: Some quantities limited; all items subject to prior sale. **Minimum order: $10.00 plus shipping.** Orders under $20.00 subject to $2.00 handling fee, in addition to shipping. All orders shipped FOB Santa Clara, CA (this means you pay freight!) by UPS Surface (no P.O. Boxes) unless otherwise specified, in which case prevailing carrier rate plus $5.00 handling fee applies. Prepaid orders that don't include shipping charges will be shipped freight COD. There is a $4.75 UPS charge added to shipping charges for COD shipments. If you have questions about your order, please call Customer Service at (408) 732-1854 M-F 9AM to 5PM PST.

LAITRON

Since 1991

"Your Total Computer Solution"

Laitron Computer now offers our customers a 2 year warranty on parts and labor on all computer systems. In order to keep our customers up and running, we will also be offering our customers a 24 hour swap on components that become defective within the first year of the warranty period.**



GRAND OPENING!!

WE NOW HAVE A RETAIL STORE AT OUR CORPORATE HEADQUARTERS IN FREMONT!! WE HAVE THOUSANDS OF ITEMS IN STOCK AT THE LOWEST PRICES. COME MEET OUR FRIENDLY AND KNOWLEDGABLE SALES STAFF. WE ARE RIGHT OFF THE 880 FREEWAY ON AUTOMALL PKWY.

5005 BRANDIN COURT, FREMONT, CA. 94538 Phone: (510) 657-3400

Intel 400MHz Performance System 100MHz Bus

- -Intel Seattle BX w/ISA audio P-II M/B
- -Intel Pentium II 400 Mhz Processor
- -64MB SDRAM Memory 8ns
- -Quantum 6.4GB UDMA H/D
- -Toshiba 32X IDE CD-ROM
- -Supra Max 56K V.90 Fax/Modem
- -Matrox Millenium II 4MB AGP
- -16 bit ISA sound on board
- -Keytronic PS/2 Keyboard
- -Microsoft Intellimouse PS/2
- -Yamaha M7 Speakers
- -1.44 Floppy Drive
- -Midsize ATX Case
- -Windows 95

$1899

UPGRADE TO 450MHz.....$199
ADD 17" innov8 .27 289
UPGRADE TO AWE 64.....$64
UPGRADE TO 128MB 8ns....99

FREE UPGRADE TO MS WINDOWS 98 WITH ANY PENTIUM II COMPUTER PURCHASE!!**

Microsoft SOLUTION PROVIDER

AMD K6-233 mmx w/ Scanner

- -Asus SP-97V M/B
- -AMD K6-233 MHz w/MMX
- -32 MB EDO Simm 72P
- -Western Digital 3.2GB HD
- -Integrated 4MB Video
- -16 bit audio,speakers
- -24X IDE CD-Rom
- -Supra Max 56K V.90 int
- -Internal Photo Scanner
- -1.44 Floppy, Keyboard
- -Mini Tower Case, Mouse
- -Windows 95 CD

$729

UPGRADE TO 64MB.....$45
UPGRADE 4.3GB HD.....45
ADD A innov8 15"... 159

Office Wizard

- -Asus P2L97 P-II 440LX
- -Intel Pentium II 233 MHz
- -64 MB SDRAM 10ns
- -Quantum 4.3 GB UDMA
- -Dmond 3D 4000 4MB AGP
- -16 bit audio
- -24X CD-Rom IDE
- -Supra Max 56K V.90 int
- -1.44 Floppy Drive
- -Speakers, 3B Mouse
- -Keyboard, Med. Case
- -Windows 95 CD

$989

UPGRADE TO 96MB.....$49
UPGR. TO 266/300.....75/119
UPGRADE TO AWE 64.....45

AGP Lightning w/ Video Camera

- -Asus P2B BX Chipset M/B
- -Intel Pentium II 300 MHz
- -96 MB SDRAM 10ns
- -Quantum 6.4GB UDMA
- -Diamond Viper AGP 4MB
- -Toshiba 32X CD-Rom
- -Xirlink Video Camera
- -Supra Max 56K V.90 int
- -Soundblaster Awe 64
- -Speakers, MS Mouse
- -Keyboard, Floppy, MidCase
- -Windows 95 CD

$1369

UPGRADE TO 333MHz.....$149
UPGRADE TO 350MHz.....299
UPGRADE TO 400MHz.....479

Toshiba Equium 6200D

- -Pentium Pro Motherboard
- -Intel Pentium Pro 200 w/256
- -32MB EDO DRAM
- -3.0 GB EIDE Hard Drive
- -2MB EDO 3D Video
- -Intel Ether Express 10/100
- -12X CD-ROM
- -Crystal Audio 16 Bit audio
- -PS/2 Mouse, Keyboard
- -Floppy, Desktop Case
- -MS NT 4.0 WS Pre-installed
- -3 Year Warranty
- -1st year Onsite Warranty

$799

ADD A innov8 17" .27.....$28
ADD A Sony 17" 200ES.....$50
ADD A Viewsonic 19".26.....$76

**Laitron Computer will swap part with comparable components that match the current market price of the defective product. 24 Hour swap applies only only to Motherboard, Hard drive, Video card, Sound Card, Ethernet Card, Fax/Modem, CD-Rom Does not include Special Order items, clearance merchandise, monitors, tape backup drives, CD-Recorders, Speakers.

**Offer good on purchases made after May 1,1998 on P-II systems over $1000. Must also purchase Win 95 with system

SAN JOSE

780 Montague Expwy.
San Jose, CA. 95131
X-street: O'Toole Ave.
(P): 408-321-9488
(F): 408-321-9353
Hours: M-F 9-6 Sat. 10-4

PLEASANT HILL

508 Contra Costa Ave
Pleasant Hill, CA. 94523
X-street: 2nd Ave. South
(P): 510-798-7888
(F): 510-798-8396
Hours: M-F 10-7 Sat-Sun 10-4

MILLBRAE

39 EL CAMINO REAL
Millbrae, CA. 94030
X-street: Millbrae Ave.
(P): 650-652-0888
(F): 650-652-0899
Hours: M-F 9:30-6:30 Sat. 10-4

PLEASANTON

COMING SOON!!!
Pleasanton, CA. 94588
X-street: Hopyard Rd.
(P): 510-XXX-XXXX
(F): 510-XXX-XXXX

Open 7 Days a Week

ATM POs

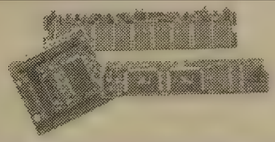
http://www.laitron.com

LAITRON

Since 1991

"Your Total Computer Solution"

Laitron Computer now offers our customers a 2 year warranty on parts and labor on all computer systems. In order to keep our customers up and running, we will also be offering our customers a 24 hour swap on components that become defective within the first year of the warranty period.**



TOSHIBA

Libretto 50CT 75, 16MB, 772mb, 6.1 TFT	$749
Libretto 70CT 120, 16MB, 1,5gb, 6.1 TFT	1399
Libretto 100CT 166MMX, 32MB, 2.1mb, 7.1	2399
Satellite Pro 440CDX 133MMX,1.3gb16mb,dstn	1299
Satellite Pro 440CDT 133MMX,1.3,16mb,TFT	1639
Satellite Pro 460CDX 166MMX,2gb,32mb,dstn	1699
Satellite Pro 460CDT 166MMX,2gb,32mb,TFT	2349
Satellite Pro 470CDT 200MMX,2gb,16mb,TFT	2549
Satellite Pro 480CDT 233MMX,3.8gb,16mb,TFT	3099
Satellite Pro 490CDT P-II 233,4gb,32mb,TFT	3399
Satellite Pro 490XCDT P-II 266,2gb,32mb,TFT	3799
Portege 660CDT 150MMX,1.35gb,16mb,TFT	1999
Portege 320CT 266MMX,3.8gb,32mb,TFT	3299
Tecra 550CDT 266MMX,3.8gb,32mb,20X,TFT	3699
Tecra 740CDT 166MMX,2.0gb,16mb,10X,TFT	2649
Tecra 750CDT 233MMX,4.7gb,32mb,20X,TFT	4699
Tecra 750CDM 233MMX,4.7gb,32mb,20X,TFT	4599
Tecra 750DVD 233MMX,4.7gb,64mb,DVD,TFT	4999
Tecra 780CDM P-II 266,8.1gb,64mb,20X,TFT	5299
Tecra 780DVD P-II 266,8.1gb,64mb,DVD,TFT	5699

ASUS

ASUS

P6300 233MMX,32mb,2gb,20X,13.3 TFT	$2699

NOTEBOOK MEMORY

Memory for Toshiba

8MB for 2400,3400,3600	$39
8MB for 400,410,420,430.	39
8MB for 4400	79
8MB for 500,650,750,305,315	39
8MB for 700.	39
8MB for Libretto 50CT	39
16MB for 500,750.	69
16MB for 610,400,410,420	68
16MB for 660,300,305,480	59
16MB for 700.	79
16MB for Libretto 50,70	85
32MB for 500.520,220,440,460	109
32MB for 300	119
32MB for 400,610,720.	109
32MB for 750,660,650	119
48MB for 500.300,440,400	179
64MB for 500,650,660,550,750	199
64MB for 710,720,730,740.	189
64MB for 750,660,650	119
128MB for 440,445,460,480	379
128MB for 500,510,520, 220.	379
128MB for 710,720,730,740	339

Memory for Compaq

16MB for 1500 series (all)	$69
16MB for 7700 series (all), 1130	69
16MB for 4100 series (all)	85
32MB for 1500 series (all)	119
32MB for 7700 series (all), 1130.	119
32MB for 4100 series (all)	139
64MB for 1500 series (all).	235
64MB for 7700 series (all)	235
64MB for 4100 series (all)	259

Memory for IBM

16MB for 345,355,360,370	$125
16MB for 750,755 (486)	95
16MB for 755 Pentium	109
16MB for 760,560,380,365X	59
32MB for TP 755	149
32MB for TP 760	159
32MB for 760,580,380,365X	125
64MB for 380,560,760	199
64MB for 770 SDRAM	229
128MB for 770 SDRAM	579
64MB for 770 SDRAM	229

CHEMBOOK

CHEM USA

The Notebook Company

"Build To Order Notebooks"

(All Chembooks include Win 95,AC adap,battery)

2600 200MMX,16mb,14X,12.1 DSTN.	1099
ADD 2.1GB/3.0GB/4.0GB	199/275/439
ADD 16MB/32MB/64MB	59/99/199
ADD 33.6K/56K Fax/ModemPCMCIA	59/89
ADD MS Office Small Biz Edition	199
2700 233MMX,32mb,20X,4mb Vid,14.2 TFT.	1989
ADD 3.0GB/4.0GB/5.0GB	275/439/579
ADD 16MB/32MB/64MB	59/99/189
ADD 33.6K/56K Fax/ModemPCMCIA	59/89
UPGRADE to Windows NT	99
3300 200MMX,32mb,20X,1.44,12.1 TFT	1229
ADD 2.1GB/3.0GB/4.0GB	199/229/399
ADD 32MB/64MB	79/165
UPGRADE to 233MMX	49
ADD 33.6K/56K Fax/ModemPCMCIA	59/89
ADD Ethernet Card PCMCIA	65
ADD Carrying Case	19
6000 IMM 233MMX,32mb,20X,13.3 XGA	2399
ADD 2.0GB/3.0GB/4.0GB	199/275/439
ADD 32MB/64MB/128MB	125/249/469
ADD Port Replicator	189
ADD Lithium Ion Battery	199
7000 233MMX,32mb,20X,4mb,15.1 XGA	2339
ADD 3.0GB/4.0GB/5.0GB	275/439/579
UPGRADE to Tillamook 266MHz	129
UPGRADE to IMM 233/266 MHz	59/159
ADD 33.6K/56K Fax/Modem PCMCIA	59/89
9750 200MMX,16mb,20X,13.3 TFT, Lith.	1799
ADD 3.0GB/4.0GB/5.0GB	275/439/579
ADD 16MB/32MB/64MB	59/79/175
ADD 33.6K/56K Fax/ModemPCMCIA	59/89
ADD MS Office Small Biz Edition	199

COMPAQ

COMPAQ

Armada 4160T 166MMX,16mb,2.1gb,12.1 TFT	$2469
Armada 7360D 200MMX,16mb,3.0gb,20X,TFT	3425
Armada 7770D 233MMX,32mb,3.0gb,20X,TFT	3679
Armada 7790D 233MMX,32mb,5.0gb,20X,13.3	4499
Armada 7792D 266MMX,32mb,5.0gb,20X,13.3	5459
Armada 7800D P-II 266,64mb,5.0gb,13.3 CTFT	5459
Tower Stand for Armada 7700 Series	109

3COM

3Com

PalmPilot Organizer Professional	$199
PalmPilot III Organizerl	299

ATM

POs

AMERICAN EXPRESS

MasterCard

DISCOVER

VISA

LAITRON

http://www.laitron.com

BERKELEY
2113 University Ave.
Berkeley, CA. 94704
X-street: Shattuck
(P): 510-647-1777
(F): 510-647-1333
Hours: M-F 10-7 S-S 10-4
Now Open 7 Days (Berk only)

HAYWARD
24901 Santa Clara St. SteB3
Hayward, CA. 94544
X-street: Jackson
(P): 510-266-0606
(F): 510-266-0522
Hours: M-F 9-6 Sat. 10-4

FREMONT HQ
5005 Brandin Court
Fremont, CA. 94538
X-street: Christy St.
(P): 510-657-3400
(F): 510-661-2012
Hours: M-F 9-6 Sat. Closed

PLEASANTON
COMING SOON!!!
Pleasanton, CA. 94588
X-street: Hopyard Rd.
(P): 510-XXX-XXXX
(F): 510-XXX-XXXX

LAITRON

Since 1991

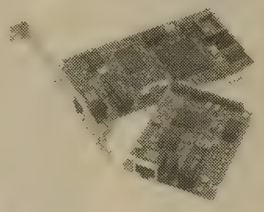
"Your Total Computer Solution"

COME SEE OUR NEW RETAIL STORE IN FREMONT, AND TAKE ADVANTAGE OF THE SPECIALS WE ARE HAVING TO CELEBRATE OUR GRAND OPENING!! (Fremont Store Only)

1) Western Digital 3.2GB UDMA Hard Drive $135 (Latest Drive)

2) Initio Ultra SCSI Cont. Card $79 (Made by Adaptec Engineers)

3) Artec 3 Button Mouse $4 (Also available in PS/2)



NETWORKING

BAY NETWORKS

	$
Netgear FA310TX 10/100 NIC	29
Netgear EN 104/108/308/516 hubs	49/69/99/189
Netgear FE104/108 100Mbps 4/8 port hub	129/219
Netgear FE508 Stackable 100 8 port, RJ-45	399
Netgear FE516 Stackable 100 16 port, RJ-45	649
Netgear SW502/507/510/518 Switches	Call
Netgear FS102/FS104 Fast Ethernet Switch	Call
Netgear FS508 8 Autosensing switched ports	959

3COM

	$
3C509 TPO oem	49
3C515-TX 10/100 ISA oem	109
3C900 PCI Combo oem	79
3C905-TX 10/100 TP PCI oem	69
3C905B-TX PCI oem	79
3C589D Etherlink III PCMCIA TP/Combo	135/175
3C16590 Dual Speed 12 Port Hub	1155
3C16670A Superstack II 12 Port Hub	465
3C16670A Superstack II 24 Port Hub	789
3C16700 TPO Office Connect Hub (8TP)	94
3C16701 TPC Office Connect Hub 16TP 1BNC	125
3C16722 TP800 8 Port Fast Hub	335

CISCO SYSTEMS

	$
Catalyst 1900 Switch 24 TP	1389
Catalyst 2820 Switch 24-10SW	1479
CPA 1604 Bridge w/NT1	1279
CPA 2501 Router	1679
CPA 2514 Router	1999
CPA 2524 Router	2499
CPA 4500 Router	CALL

HEWLETT PACKARD

	$
J2550B Jet Direct TP	269
J2552B Jet Direct Combo	329
J2555B Jet Direct Token Ring	549
J2556B Jet Direct 10/100 Combo	389
J2591A Jet Direct EX Plus Combo	229
J3110A Direct TP for LJ 4000 Series	239
J3111A Direct Combo for LJ 4000 Series	289
J3113A Direct TP 10/100 for LJ 4000 Series	399
J2610B AdvancedStack 8 Port hub	239
J3200A AdvancedStack 12 Port Switching	419
J3202A AdvancedStack 24 Port Switching	819

SOFTWARE

MICROSOFT

	$
MS Win 95 Retail Pk.	179
MS NT 4.0 Workstation.	259
MS NT Server 4.0 5 User	749
MS NT Server 4.0 10 User	989
MS Office 97 Pro Retail Pk.	489
MS Office 97 Pro Upgrade Ret	289
MS Small Biz Server 5 User	1399
MS Frontpage 98	129
MS Publisher 98	99

Microsoft SOLUTION PROVIDER

NOVELL Novell.

Intra Netware 4.11	
For 5/10/25 user	689/1279/2059
For 50/100/250	2799/3899/7199
For 500/1000	14999/2999

SYMANTEC

	$
ACT! V3.0 for 95 and NT	169
Norton Antivirus Deluxe 4.0	69
Norton Uninstall Deluxe	49
Norton Utilities 95 V3.0	69
PC Anywhere 8.0 Remote&Host	135

ADOBE

	$
Photoshop 5.0 Win	599
Pagemaker 6.5 Win	499
Illustrator 7.0 Win	359
Premier v4.2 Win	479
Framemaker 5.5	699
Acrobat 3.0.1	189
Acrobat Capture 2.0	545

IBM

	$
Via Voice for Win	89
Via Voice Gold for Win	135

PRICES REFLECT A 2% CASH DISCOUNT

SCANNERS

EPSON

Expression 636 36 bit Executive SCSI	695
ES1000C 30 bit SCSI or bi-directional PP	Call

HP

HEWLETT PACKARD

HP Scanjet 5P	249
C5193A Scanjet 5100CXi	279
C6267A Scanjet 6100	699
ADD Auto Document Feeder (C6265A)	449
C1307A Network Scanjet 5 Ethernet	Call
C1308A Network Scanjet 5 Token Ring	Call
C1310A Network Scanjet 5 Fast Ethernet	Call

MICROTEK

Scanmaker E6 1200dpi	265
Scanmaker E6 Pro w/Photoshop	489

STORM TECHNOLOGY

SPECIAL OF THE MONTH

Internal Photo Scanner IDE
-400 Dpi Optical Resolution
-2400 Dpi Max. Resolution
-Includes Interface ISA Card
-Includes EZ Photo for Win95
-Sealed Retail Box

$59

UMAX

Astra 610P PC	135
Astra 610S w/Photodeluxe	149
Astra 1200S W/Photodeluxe	249
Astra 1200S w/ Photoshop	449
Astra 1220P 36 Bit 600 Dpi Parallel Port	209
Powerlook II for MAC SCSI	Call
Powerlook III for MAC SCSI	Call

POWER BACK-UP

APC

BackUPS Stand By Power, 280VA	95
BackUPS Stand By Power, 400VA	129
BackUPS Stand By Power, 450VA	169
BackUPS Stand By Power, 600VA	229
Smart UPS Net PnP w/Powerchute,620VA	289
Smart UPS Net PnP w/Powerchute, 1100VA	479
Smart UPS Net PnP w/Powerchute, 1400VA	599

ATM POs VISA

http://www.laitron.com

LAITRON

SAN JOSE

780 Montague Expwy.
San Jose, CA. 95131
X-street: O'Toole Ave.
(P): 408-321-9488
(F): 408-321-9353
Hours: M-F 9-6 Sat. 10-4

PLEASANT HILL

508 Contra Costa Ave
Pleasant Hill, CA. 94523
X-street: 2nd Ave. South
(P): 510-798-7888
(F): 510-798-8396
Hours: M-F 10-7 Sat-Sun 10-4
OPEN 7 DAYS A WEEK

MILL-

39 EL CAMINO REAL
Millbrae, CA. 94030
X-street: Millbrae Ave.
(P): 650-652-0888
(F): 650-652-0899
Hours: M-F 9:30-6:30
Sat. 10-4

PLEASANTON

COMING SOON!!!
Pleasanton, CA. 94588
X-street: Hopyard Rd.
(P): 510-XXX-XXXX
(F): 510-XXX-XXXX

LAITRON

Since 1991

"Your Total Computer Solution"

REMOVABLE STORAGE

IOMEGA

ZIP Drive 100MB IDE int.	$89
ZIP Drive 100MB SCSI int. (oem)	125
ZIP Drive 100MB SCSI Ext	139
ZIP Drive 100MB Parallel Port.	139
ZIP Plus 100MB SCSI & Parallel.	185
ZIP Zoom SCSI Accelerator Card	45
ZIP 100MB Disk 1/3/10	12/35/115
JAZ Drive 1GB SCSI Int..	275
JAZ Drive 1GB SCSI Ext..	365
JAZ 1GB Disk 1/3/5	79/234/387
JAZ Traveller..	44

SYQUEST

Sparq 1GB IDE Int..	$189
Sparq 1GB Parallel Port Ext..	199
Syjet 1.5GB IDE Int	275
Syjet 1.5GB Parallel Port	289
Syjet 1.5GB SCSI Int..	279
Syjet 1.5GB SCSI Ext..	299
Syjet 1.5GB Disk	64

AVATAR

Shark 250MBParallel Port..	$199
Shark 250MB PCMCIA.	209

TAPE BACKUP

EXABYTE

Eagle TR3 3.2 Int.	$144
EXB 8700LT 8mm 5-10GB Ext.	674
Eliant 820S7-14GB, Int	1515
Eliant 820S 7-14GB Ext.	1769
Mammoth 8900SL 20-40GB Int	2975
Mammoth 8900SL 20-40GB Ext	3215
210RK Auto Library 70-140GB	5995

HP

C1534 4mm DAT 2GB SCSI Int.	$545
C1536 4mm DAT 2-4GB SCSI Int.	575
C1554 DAT 24GB DDS-3 Int.	1039
C1599 DAT 8GB DDS-2 Int.	709
C5648A DAT 24GBX6 Autoloader	2579
C5644B Surestore T4i 4GB Int..	349
C5645 Surestore T4e 4GB Ext..	449
C1549A Surestore DLT 30GBExt.	3079
Mounting Brack 1534,1536,1599	29
Mounting Brack 1554	29

IOMEGA

Ditto 3200MB Int..	$138
Ditto 3200MB Parallel Port.	238
2GB Tape 1/3.	19/57

SONY

Lanbacker 7000: 8GB DDS-2 Int..	$889
Lanbacker 7000: 8GB DDS-2.Ext	1099
Wanbacker 7000: 8GB DDS-2 Int.	1529
Wanbacker 7000: 8GB DDS-2 Ext	1779
Wanbacker 9000: 24GB DDS-3 Int.	1899
Wanbacker 9000: 24GB DDS-3 Ext.	2169
4mm 120M Tape for DDS-2.	14
4mm 125M Tape for DDS-3.	28

THE SCSI SPECIALISTS

"NOBODY BEATS OUR PRICES ON SCSI"

IBM

2.1GB UW SCSI 76H5814 5400RPM	$185
4.3GB Ultra Wide SCSI 5400 RPM	275
4.3GB Ultra Wide SCSI 7200RPM	399
9.1GB Ultra Wide SCSI 7200RPM	659

QUANTUM

2.1GB Ultra SCSI ST32100SE	$189
3.2GB Ultra SCSI ST33200SE	275
4.3GB Ultra SCSI Atlas II ST34300SE	349
6.4GB Ultra SCSI Atlas II ST36400SE	369
4.5GB Ultra Wide SCSI Viking II XP34550W	405
9.0GB Ultra Wide SCSI Viking II XP39100S	699
9.0GB Ultra Wide SCSI Viking II U2W 80MB/sec	849

SEAGATE

2.2GB Ultra Wide SCSI ST32272	$325
2.1GB Ultra Wide SCSI	199
4.5GB Ultra SCSI ST34572N	499
4.5GB Ultra Wide SCSI ST34572W	529
4.5GB Ultra Wide SCSI ST34501W 10,000RPM	599
4.5GB Ultra Wide SCSI	435
9.1GB Ultra SCSI 19171N 7200RPM	789
9.1GB Ultra Wide SCSI 9LP 7200RPM	789
9.1GB Ultra SCSI 19101N 10,000RPM	919
9.1GB Ultra Wide SCSI 19101W 10,000 RPM	929
23GB Ultra Wide SCSI	1499
47GB Ultra Wide SCSI	3195

WESTERN DIGITAL

2.17GB Ultra SCSI E2170	$329
2.17GB Ultra Wide SCSI E2170	359
4.3GB Ultra SCSI E4360	479
4.3GB Ultra Wide SCSI E4360	489
9.1GB Ultra Wide SCSI E9100	789

SCSI CONTROLLER CARDS

ADAPTEC

2940 SCSI PCI (oem)	$135
2940U SCSI PCI oem/retail	169/225
2940UW Ultra Wide SCSI PCI oem/Retail	185/229
3940 Multichannel SCSI PCI	389
3940 Ultra Wide SCSI w/kit	459
2940U2W Ultra Wide SCSI 80Mb/sec oem	299
1460B Slim PCMCIA SCSI	159
AAA-131 Raid Single Channel/CA	429/509
AAA-133 Raid 3 Channel	679

DIAMOND

FIREPORT 40 ULTRA WIDE SCSI (oem)	$89

ULTRA DMA IDE

"TWICE AS FAST AS EIDE.....33MB/Sec"

IBM

6.4GB Deskstar Ultra DMA IDE	$229
8.4GB Deskstar 5400 RPM Ultra DMA IDE	299
14.4GB Deskstar 7200 RPM Ultra DMA IDE	Call
16.8GB Deskstar 7200 RPM Ultra DMA IDE	Call

QUANTUM

3.2GB Ultra DMA IDE	$149
4.3GB Ultra DMA IDE	165
6.4GB Ultra DMA IDE	199
8.4GB Ultra DMA IDE	295
12.0GB Ultra DMA IDE	395

WESTERN DIGITAL

2.0GB Ultra DMA IDE	$139
3.2GB Ultra DMA IDE	149
4.3GB Ultra DMA IDE	165
6.4GB Ultra DMA IDE	199
8.4GB Ultra DMA IDE	295

MAXTOR

8.4GB Ultra DMA IDE	$259

CD RECORDERS & REWRITABLE

YAMAHA

CRW 4001 EIDE Int 6X Read, 4X Write, 2X ReWrite	$479
CDR 400 6X Read, 4X Write Ext	565
CRW 4260 4X/2X/6X SCSI Int Rewritable (Retail Pk)	539
CRW 4260 4X/2X/6X SCSI Ext Rewritable (Retail Pk)	629

HEWLETT-PACKARD

HP C7200i Rewritable 6X2 Int. (Retail Pk)	$389
HP C7200e Rewritable 6X2 Ext. (Retail Pk)	489

RICOH

Ricoh 6X/2X SCSI Int/Ext (Retail Pk)	$489/559

SONY

Sony 928e 8X/2X IDE Int. (Retail Pk)	$305
Sony 960 6X/2X SCSI Int (Retail Pk).	359

SMART & FRIENDLY

Smart and Friendly 4X6 SCSI Ext. (Retail Pk)	$679

MITSUMI

Mitsumi 8X2 IDE Recorder Int. (Retail Pk)	$299

TEAC

Teac CDR 4X4 SCSI Recorder Int. (oem)	$329

BLANK CD MEDIA

Maxell CDR 74 min 680MB single/10 Pack	$2.50/22
TDK CDR 74 min 680MB single/10 Pack	2.50/24
KAO CR 74 min 680MB single/10 Pack	2.25/21
KAO CDR 74 min 680MB single/10 Pack	2.50/24
KAO CDRW Rewritable	16.95
HP CDR 74 min 680MB single/10pk/25pk	3.50/28/65
HP CDRW Rewritable (C4431)	18.95

LAITRON http://www.laitron.com

ATM POs

BERKELEY
2113 University Ave.
Berkeley, CA. 94704
X-street: Shattuck
(P): 510-647-1777
(F): 510-647-1333

HAYWARD
24901 Santa Clara St. SteB3
Hayward, CA. 94544
X-street: Tennyson
(P): 510-266-0606
(F): 510-266-0522

FREMONT HQ
5005 Brandin Court
Fremont, CA. 94538
X-street: Christy St.
(P): 510-657-3400
(F): 510-661-2012

PLEASANTON
COMING SOON!!!
Pleasanton, CA. 94588
X-street: Hopyard Rd.
(P): 510-XXX-XXXX
(F): 510-XXX-XXXX

LAITRON

Since 1991

Laitron Computer now offers our customers a 2 year warranty on parts and labor on all computer systems. In order to keep our customers up and running, we will also be offering our customers a 24 hour swap on components that become defective within the first year of the warranty period.**

MONITORS

3Com

PC MAGAZINE EDITORS' CHOICE

VIEWSONIC

	$
E641 14" 1024x768 .28	159
E655 15" 1280x1024 .28	249
P655 15" 1280x1024 .27	279
EA771 17" 1280x1024 .27 W/Speaker & MIC	479
G771 17" 1280x1024 .27	419
G773 17" 1280x1024 .26	449
P775 17" 1600X1200 .25	499
PT770 17" 1600x1200 .25	569
PT775 17" 1600x1200 .25	619
G790 19" 1600x1200 .26	749
PS790 19" 1600x1200 .26 Space Saving	809
G800 20" 1600x1200 .28	919
G810 21 1600x1200 .25	969
P810 21" 1600x1200 .25	1099
PT813 21" 1600x1200 .28	1279
P815 21" 1600x1200 .25	1209
29GA 29" 1280x1024 .75 ST	1979
VP140 14" LCD Monitor	999

NEC

	$
A500 15" 1280x1024 .28	264
E500 15" 1280x1024 ..25	329
M500 15" 1280x1024 .25	339
A700 17" 1280x1024 .28	459
E700 17" 1600x1200 .25	649
M700 17" 1280x1024 .25	675
P750 17" 1600x1200 .25	769
E1100 17" 1600X1200 .28	1119
P1150 17" 1600x1200 .25	1209
LCD400 14.1" 1024x768 .28	1499
LCD400V 14.1" 1024x768 .28	1399

SONY

	$
CPD-100ES 15" 1280X1024 .25	299
CPD-100GS 15" 1280x1024 .25	349
CPD-200ES 17" 1280X1024 .25	525
CPD-200GS 17" 1280x1024 .25	589
GDM-200PS 17" 1600x1200 .25	775
GDM-400PS 19" 1280x1024 .25	929
CPD-300SFT 21" 1280X1024 .30	1109
CPD-500PS 21" 1600x1200 ..28	1359

innov8

	$
1588 15" 1024x768 .28	169
1788 17" 1280x1024 .27..	299
1789 17" 1280x1024 .26..	339
1988 19" 1600x1200 .26	549

Innov8 Monitors give you high performance features and superb quality at prices that you can afford. These monitors are perfect for the user who works with anything from word processing to video conferencing. Also, the entire Innov8 monitor line comes standard with a built in MIC, and a 42 month warranty.

DIGIVIEW

	$
HR1435 14" 1024x768 .28	129

HITACHI

	$
CM 500U 15" .28	249
CM 620U 17" .28	519
CM 630U 17" .26	575
CM 751 19" .26	829
CM 800U 21" .22	1159
CM 802U 21" .22	1209
CM 803U 21" .22	1499

PCWORLD BEST BUY

Prices Reflect a 2% Cash Discount

VIDEO CARDS

DIAMOND

	$
Diamond 3D 2000 2MB PCI	49
Diamond 3D 2000 Pro 2MB PCI	59
Diamond 3D 2000 Pro 4MB PCI	75
Diamond 3D 4000 4MB AGP	79
Diamond Stealth II S220 4MB SGRAM PCI	85
Diamond Viper 330 4MB PCI	89
Diamond Viper 330 4MB AGP	89
Diamond Monster 3D II 8MB	215
Diamond Monster 3D II 12MB	299
Diamond Fire GL 1000 Pro 8MB PCI	159
Diamond Fire GL 1000 Pro 8MB AGP	159
Diamond Fire GL 3000 8x16 VRAM/DRAM PCI	799
Diamond Fire GL 3000 8x32 VRAM/DRAM PCI	999
Diamond Fire GL 4000 15x4 3DRAM/CDRAM	2259
Diamond Fire GL 4000 15x16 3DRAM/CDRAM	2639

ATI

	$
ATI All-in-Wonder 4MB PCI	179
ATI All-in-Wonder Pro 4MB PCI	209
ATI All-in-Wonder Pro 8MB PCI	269
ATI Xpert@Play 4MB AGP	95
ATI Xpert@Play 4MB PCI	95
ATI Xpert@Play 8MB AGP	125
ATI Xpert@Play 8MB PCI	125
ATI Xpert@Work 4MB AGP	89
ATI Xpert@Work 4MB PCI	89
ATI Xpert@Work 8MB AGP	119
ATI Xpert@Work 8MB PCI	119

NUMBER NINE

	$
Revolution 3D 128 4MB AGP	129
Revolution 3D 128 4MB PCI	129
Revolution 3D 128 8MB AGP	189
Revolution 3D 128 8MB PCI	189
4MB Upgrade for Revolution	135

MATROX

	$
Mystique 220 2MB/4MB PCI	59/75
Productiva G100 4MB/8MB	75/89
Productiva G200 4MB/8MB	109/149
Millenium II 4MB WRAM AGP/PCI	119/119
Millenium II 8MB WRAM AGP	179
Millenium II 8MB WRAM PCI	179
Rainbow Runner for Millenium II	209
Rainbow Runner Television	88
Matrox M3D 4MB Upgrade	88
Memory Upgrade for Mill II 4/8/12MB	119/159/249

SAN JOSE

780 Montague Expwy.
San Jose, CA. 95131
X-street: O'Toole Ave.
(P): 408-321-9488
(F): 408-321-9353

PLEASANT HILL

508 Contra Costa Ave
Pleasant Hill, CA. 94523
X-street: 2nd Ave. South
(P): 510-798-7888
(F): 510-798-8396

MILLBRAE

39 EL CAMINO REAL
Millbrae, CA. 94030
X-street: Millbrae Ave.
(P): 650-652-0888
(F): 650-652-0899

PLEASANTON

COMING SOON!!!
Pleasanton, CA. 94588
X-street: Hopyard Rd.
(P): 510-XXX-XXXX
(F): 510-XXX-XXXX

LAITRON

Since 1991

"Your Total Computer Solution"

FOR THE LOCATION NEAREST YOU PLEASE CALL
1-888-LAITRON (1-888-524-8766)

MOTHERBOARDS

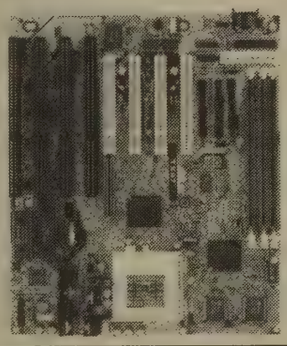
SP97-V w/ up to 4MB Video $85
SP97-V w/ max 4MB Video ATX .$99
TXP4 119
TXP4X ATX 512K 129
XP55T2P4 ATX 139
TX97 135
TX97-E 135
TX97-X 139
TX97-XE 139
TX97-XE w/audio 169
P2L97 P-II AGP, PCI, DIMM 135
P2L97S P-II, AGP UW SCSI 249
P2L97DS Dual P-II w/2940UW ..399
P2B 440BX P-II 233-400MHz ...199
P2B 440BX-S P-II w/Adap. UW .299

intel

Anchorage 512K w/sound 149
Atlanta Pentium II AGP 149
Atlanta Pentium II AGP w/audio .165
Seattle BX P-II w/ISA audio 209
Seattle BX P-II w/PCI audio 219
Dakota Dual P-II AGP UW SCSI .499

ABIT (jumperless)

PX5 w/512K AT TX 84
AX5 w/512K ATX w/USB TX 99
LX6 P-II w/512K AGP 2 USB .....
4PCI, 3ISA, 4 DIMM 129



CPU and MEMORY

AMD K6 233/266/300 ....$89119/149
Intel 133/150 .....97/99
Intel 200 MMX/233 MMX 109/129
Intel P-II 233/266/300 ..179/239/289
Intel P-II 333/350/400 ..399/549/749
EDO SIMMS 16/32/64 .....23/39/109
SDRAM 32/64/128 10ns ...45/99/189
SDRAM 32/64/128 8ns ...55/109/209

Prices reflect a 2% Cash Discount.

CD-ROMS & DVD

ASUS

Asus 34X IDE $75

MITSUMI

Mitsumi 32X IDE $75

NEC

NEC 24X IDE $79
NEC 24X SCSI 99

PLEXTOR

Plextor PX-20X SCSI int. (Tray) $199
Plextor PX-32X SCSI int. (Caddy) 265
Plextor PX-32X SCSI int. (Tray) 225

TEAC

Teac 24X IDE $65
Teac 32X IDE 69

TOSHIBA

Toshiba 24X IDE $65
Toshiba 32X IDE 75
Toshiba 32X SCSI 99
Toshiba DVD Cinemaster 279

SOUND CARDS

CREATIVE LABS

Sound Blaster 16 PnP $39
Sound Blaster Awe 64 Value oem/retail 69/95
Sound Blaster Awe 64 Gold 169

KEYBOARDS

Keytronic 3601 PS/2 .....$25
Keytronic 3601 AT 24
Microsoft Natural Keyboard oem 49
Mitsumi Win95 EAZE PS/2 15
Mitsumi Win95 EAZE AT 14

FAX/MODEM

US ROBOTICS

USR 33.6K Fax/Modemw/voice oem $69
USR 56K V.90 Fax/Modem oem int. 119
USR 56K V.90 Fax/Modem w/Voice oem int 139
USR 56K V.90 Fax/Modem Ext. 189
USR X1560 56K PCMCIA 199

SUPRA

Supra 33.6K Fax/Modemw/voice oem $59
Supra 56K Max V.90 Fax/Modem oem 69
Supra 56K Express V.90 Modem w/Voice oem ...95
Supra 56e V.90 Fax/Modem retail 129

PRINTERS

EPSON

Epson Stylus 400 Color 720dpi 3ppm $169
Epson Stylus 600 Color 209
Epson Stylus 800 Color 720x1440 dpi 8ppm 289
Epson Stylus 850 Color 359
Epson Stylus Photo 209
Epson Stylus 3000 1599
Black ink for Stylus 400/600/Photo 19
Black ink for Stylus 800 19
Color ink for 400/600/800/1520 23

HEWLETT PACKARD

HP Deskjet 692C $269
HP Deskjet 720C 329
HP Deskjet 890CXi 385
HP Deskjet 1120 CXi 11x17 Prints 475
HP Deskjet 1600C 1269
HP Deskjet 1600CM 1849
HP Laserjet 5000/5000N/5000GN ...1489/2089/2599
HP Laserjet 8000/8000N/8000DN ...2399/2679/3099
HP Laserjet 5si/5siMX 4349/6499
HP Laserjet 6LXi 389
HP Laserjet 6PXi 739
HP Laserjet 4000 1099
HP Laserjet 4000N 1379
HP Laserjet 4000T 1239
HP Laserjet 4000TN 1559
HP Color Laserjet 5 3799
HP Color Laserjet 5M 4899

PRINTER MEMORY

HP Laserjet 4000 series .....$
4/8/16 MB EDO Module 57/95/185
4/8/16/32 MB SDRAM Module 69/99/189/349
HP Laserjet 5L,6LXI,6L .....
4/8 MB 69/99
HP Color Laserjet 5,5M,1600C .....
4/8/16/32 MB 38/58/95/169
HP Laserjet 4V,4+,5/5N/5P/5Si,6P .....
4/8/16/32 MB 38/58/95/169
HP Laserjet 4/4M/4Si/1200C .....
4/8 MB 54/85
HP Laser III,IIIP,IIID .....
1/2/4 MB 65/85/169

intel COMPAQ IBM
HEWLETT PACKARD TOSHIBA

We are an Authorized Service Center for COMPAQ and HP

TERMS AND CONDITIONS

1) One year warranty parts, 2 year warr. on sys.
2) Prices and availability are subject to change without notice or obligation.
3) Shipping, COD, & insurance are extra and not refundable.
4) All prices reflect cash discount.
5) All returns must have Return Merchandise Authorization (RMA) Number.
6) All returns must be in original packaging complete with manual, software,...etc.
7) 15% restocking charge on returns after three days.
8) Laitron Computer is not responsible for any typos
9) All Prices are final on the date of purchase.
10) Some Items may require special orders.
11) Price matching only applies to local competitors Mail order, closeouts, limited quantites excluded
12) Laitron Computer will swap defective parts with comparable components that match current MV

LAITRON

POs ATM VISA

Anything they can do we can do better...

- The ultimate custom computer configuration (any make, any item).
- Hard-to-find items & special orders? CALL!
- Individually assigned reps (no holding, no hassles)!
- All your computer needs — one-stop shop!
- Aggressive pricing always.
- On-/offsite repair service from $55/hour.
- Free installation of computer components with purchase.
- Free delivery & installation of systems within 30 miles.
- Serving corporate accounts & individuals for 15 years.

Authorized for IBM COMPAQ HEWLETT PACKARD and All Other Major Manufacturers

EDC SYSTEMS
Since 1983

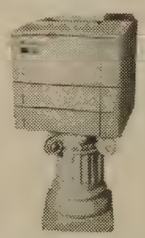
510-283-1700
fax 510-283-1744
3455 Golden Gate Way
Lafayette, CA 94549

ONE STOP FOR ALL YOUR PRINTER NEEDS

Experience The Highest Quality Of Service And Value From One Of The Fastest Growing Printer Service Centers In The Bay Area

HP 4000 Series

HP LaserJet 4000 $1049
HP LaserJet 4000T $1189
HP LaserJet 4000N $1349
HP LaserJet 4000TN $1499



WE'LL BEAT ANY COMPETITOR'S PRICE!

HEWLETT PACKARD
Authorized Dealer Sales & Service Center

SALES
REPAIRS & PRODUCTS 100% GUARANTEED

BRAND NEW PRINTERS

5000 Series
LaserJet 5000 ..... $1370
LaserJet 5000N $1939
LaserJet 5000GN $2442

8000 Series
LaserJet 8000 ..... $2238
LaserJet 8000N $2514
LaserJet 8000DN $2989
HP Color LaserJet 5/5M ..... $CALL

See Our Repair Ad in the Classified Section!

"Financing Available"

Note: All registered trademarks and logos are the properties of their respective companies.
Prices are subject to change without notice. While supplies last.
All prices based on cash purchase. Credit Cards add 2%.

Computer Xtras Xpress Inc.
www.cartridgesonline.com
San Jose • 1671 Rogers Ave.
1-888-774-5273 (voice) • 1-888-554-5273 (fax)

continued from page 74

The Windows-based Copilot emulator (as yet untweaked) was unable to load the Linux kernel.

Running Linux on the Xcopilot emulator when the emulator in turn is running on a Linux system is a dizzying, but not unsatisfying experience.

What Good Is This?

Once you've booted the Linux kernel on a Pilot, what exactly can you do with it? Well, not much: a bare kernel has no user interface to speak of, and the uClinux kernel is still at a very early stage of development ("pre-alpha," the Web site warns).

The uClinux kernel loads itself, creates an array of RAM disks in available memory and mounts a read-only version of the root filesystem. It initializes a serial line (tty) driver on the Pilot's built-in serial port. (This raises the prospect that someday, someone will hook up a serial terminal to a Palm Pilot to login to uClinux.)

Portability was one of the original goals of the UNIX system (though as UNIX has gotten larger, that goal has receded over the horizon). The Linux community, however, has taken the idea of portability and run with it.

For the time being, when the kernel boots, it puts a "Welcome to Linux" message on the Pilot's screen along the with an icon of the Linux penguin mascot. There are no login or shell utilities yet.

The folks at the Silver Hammer Group are working on a port of the basic C library to uClinux, and that is a necessary prelude to providing usable utilities. With 8MB memory cards for the Pilot, there is more than enough memory to put together a small, functional Linux system on the Pilot.

UNIX, it should be remembered, was once a fairly small system with modest hardware requirements: the first UNIX system in 1969 ran on a PDP-11 with 24K of memory. As late as 1981, a super-micro computer with 2.5MB of RAM could serve as a time-sharing system for 10 users. uClinux demonstrates that porting UNIX does not necessarily mean moving it to bigger, more powerful hardware.

uClinux probably does not have a lot of commercial potential, but thankfully, that is not the point. Like most of the Linux efforts underway, the developers ported Linux to the Pilot just because they could.

And because they understood that Linux is more than a piece of software. ◆

Copyright © 1998 by Bennett Falk. All rights reserved.

Resources:

Linux
www.linux.org
www.geocities.com/SiliconValley/Heights/6494/linux.html

Palm Pilot
www.palmpilot.com
www.palm.org

Silver Hammer Group, Ltd.
http://ryeham.ee.ryerson.ca/uClinux/

Technology Resource Group (TRG)
www.trgnet.com

The Jargon Dictionary
www.netmeg.net/jargon/terms/l/live_free_or_die.html

BENiTEK USA COMPUTER INC.

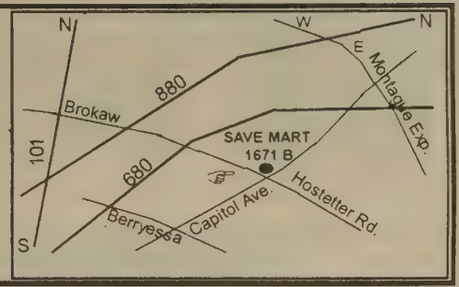
1671 B North Capitol Ave. San Jose, CA 95132

Tel: 408-254-3750 *** Fax: 408-254-7591

Hours: Mon-Fri 9:30 - 6:00 * Sat 10:30 - 5:00

Email: Benitek@AOL.COM

Web:http//member.aol.com/benitek/benitek.html



PENTIUM II BX SYSTEMS	PENTIUM II LX SYSTEMS	ANCHORAGE SYSTEMS	ASUS TX97 SYSTEMS	BEST BUY SYSTEMS
* Intel Seattle 440BX Mboard or Asus P2B98-440BX Mboard w/ Accelerated Graphics Port.	* Intel Atlanta 440LX Mboard or Asus P2L97-440LX Mboard w/ Accelerated Graphics Port.	* Intel Anchorage TX PCI Motherboard	* Asus Triton TX97 Motherboard	* Tnton TX PCI Motherboard
* 512k L2 Pipelined Burst	* 512k L2 Pipelined Burst	* 512k L2 Pipelined Burst	* 512k L2 Pipelined Burst	* 512k L2 Pipelined Burst
* 64 MB SDRAM PC100	* 64 MB SDRAM 10ns	* 32 MB SDRAM 10ns	* 32 MB EDO RAM	* 32 MB SDRAM 10ns
* Teac 1 44 Floppy Drive	* Teac 1 44 Floppy Drive	* Teac 1.44 Floppy Drive	* Teac 1 44 Floppy Drive	* Teac 1 44 Floppy Drive
* WD 6 4GB EIDE Ultra DMA	* Fujitsu 4 30 GB Ultra DMA	* Fujitsu 4.30 GB Ultra DMA	* 4 30 GB EIDE Ultra DMA	* 2 60 GB EIDE Ultra DMA
* EIDE PCI built-in I/O 16550	* EIDE PCI built-in I/O 16550	* EIDE PCI built-in I/O 16550	* EIDE PCI built-in I/O 16550	* EIDE PCI built-in I/O 16550
* ATI Xpert @Work AGP 8MB	* ATI Xpert @Work AGP 8MB	* Diamond Fire Pro 1000 4MB	* ATI Xpert @ Work PCI 4MB	* S3 PCI video card 2mb
* ATX Medium Tower 250W	* ATX Medium Tower 250W	* ATX Medium Tower 250W	* ATX Medium Tower 250W	* Mini Tower 250W
* KeytronicWin95 keyboard	* Mitsumi Win95 keyboard	* Mitsumi Win95 keyboard	* Mitsumi Win95 keyboard	* Mitsumi Win95 keyboard
* Microsoft PS2 IntelliMouse	* Logitech PS2 mouse	* Logitech PS2 mouse	* Logitech PS2 mouse	* Logitech PS2 mouse
* Toshiba 32x CD-ROM	* Toshiba 32x CD-ROM	* Toshiba 24x CD-ROM	* Toshiba 24x CD-ROM	* Toshiba 24x CD-ROM
* PCI Audio Stereo Sound	* Yamaha Stereo Sound	* Yamaha Stereo Sound	* Yamaha Stereo Sound	* Yamaha Stereo Sound
* Yamaha M7 speakers	* Yamaha M7 speakers	* 180 watt speakers	* 180 watt speakers	* 120 watt speakers
* US Robotics 56K Fax Modem	* US Robotics 56K Fax Modem	* 56k Fax Modem w/ voice	* 56k Fax Modem w/ voice	* 33.6 Fax Modem
* Free Power Surge & CPU fan	* Free Power Surge & CPU fan	* Free Power Surge & CPU fan	* Free Power-Surge & CPU fan	* Free Power Surge & CPU fan
* Window 95 or 98 CD & Manual	* Window 95 or 98 CD & Manual	* Window 95 or 98 CD & Manual	* Window 95 or 98 CD & Manual	* Window 95 or 98 CD & Manual
* Impression 7plus 27 17" Motr	* Impression 7plus 27 17" Motr	* Impression 5plus 28 15" Motr	* Impression 5plus 28 15" Motr	* MGC 28 14" Monitor
Pentium® II Processor	Pentium® II Processor	Pentium® Processor	Pentium® Processor	Pentium® Processor
400MHz MMX $2123	333MHz MMX $1726	233MHz MMX $1126	233MHz MMX $1101	233MHz MMX $818
350MHz MMX 1899	300MHz MMX 1613	200MHz MMX 1095	200MHz MMX 1070	200MHz MMX 787
333MHz MMX 1830	266MHz MMX 1499	166MHz MMX 1088	AMD K6 Processor	AMD K6 Processor
300MHz MMX 1707	233MHz MMX 1431	133MHz MMX 1058	233MHz MMX 1049	233MHz MMX 766
			200MHz MMX 1036	200MHz MMX 753

Special System

PENTIUM II 233 MHz MMX 32X MULTIMEDIA SYSTEM

ONLY $ 1399

* Intel Atlanta 440LX Mboard (Made by Intel)
* 512k L2 Pipelined Burst
* 64 MB SDRAM 10ns
* Teac 1 44 Floppy Drive
* 4 30GB EIDE Ultra DMA
* EIDE PCI built-in I/O 16550
* ATI Xpert @Work AGP 8MB
* ATX Medium Tower 250W
* Mitsumi Win95 PS2 keyboard
* Net PS2 mouse
* Toshiba 32x CD-ROM
* Yamaha Stereo Sound
* 180 watt speakers
* 56k Fax Modem w/ voice
* Free Power Surge & CPU fan
* Window 95 or 98 CD & Manual
* Impression 7plus 27 17" monitor

Pentum II 266 MHz	$1479
Pentum II 300 MHz	$1593
Pentum II 333 MHz	$1706
Pentum II 350 MHz	$1846
Pentum II 400 MHz	$2069

(Pentium II 350 & 400 use Seattle MB)

MotherBoard + CPU	
Intel Seattle SE440BX Pen II 400	999
Intel Seattle SE440BX Pen II 350	787
Intel Seattle SE440BX Pen II 333	702
Intel Seattle SE440BX Pen II 300	589
Intel Seattle SE440BX Pen II 266	465
Intel Seattle SE440BX Pen II 233	397
Intel Atlanta AL440LX Pen II 333	672
Intel Atlanta AL440LX Pen II 300	559
Intel Atlanta AL440LX Pen II 266	435
Intel Atlanta AL440LX Pen II 233	367
Asus P2B98-440BX Pen II 400	965
Asus P2B98-440BX Pen II 350	742
Asus P2L97-440LX Pen II 333	633
Asus P2L97-440LX Pen II 300	520
Asus P2L97-440LX Pen II 266	396
Asus P2L97-440LX Pen II 233	328
Asus P2L97S-440LX Pen II 333	717
Asus P2L97S-440LX Pen II 300	604
Asus P2L97S-440LX Pen II 266	480
Asus P2L97S-440LX Pen II 233	412
Intel Venus+Pentium Pro 180MHz	235
Intel AN430TX P-233 MMX/512	250
Intel AN430TX P-200 MMX/512	230
Asus TX97E P-233 MMX/512	259
Asus TX97E P-200 MMX/512	239
AMD K6-233 + Asus TX97E/512	212
AMD K6-200 + Asus TX97E/512	199
Triton TX + P-233 MMX/512	223
Triton TX + P-200 MMX/512	192

Special Sales this month:

* **Pentium II 233 MMX w/ Atlanta AGP 512 K ...$349**
* **Pentium 233 MMX w/ Triton TX PCI 512 K ... $205**
* **ATI Xpert@work PCI 8MB video card only $99**
* **32 MB EDO MEMORY 60ns (brand name) $30**
* **Toshiba 24X EIDE CD-ROM $55**
* **ATX mid tower case 250 watt P.S. $49**

MONITOR

MGC 14" .28 Monitor	130
MGC 15" .28 Digital Monitor	165
MGC 17" .26 Digital Monitor	365
Impression 3plus 14" Monitor	135
Impression 5plus 15" Digital	165
Impression 3plus 17" .27 Digital	320
Sony 100ES 15" .25	299
Sony 200GS 17" .25	620
ViewSonic 17" G771 .27	449
Hitachi 630 17" .22 Monitor	645
NEC E700 .25 1600X1200	575

72 PINS MEMORY

8 MB 60ns 72 PIN EDO (16 chip)	15
16 MB 60ns 72 PIN EDO (8 chip)	20
16 MB 60ns w/ parity (12 chip)	25
32 MB 60ns (8x32) EDO	40
64 MB 60ns (16x31) EDO	95

30 PINS MEMORY

1 MB 60/70/80ns 30 PIN (1x3)	3
4 MB 60/70ns 30 PIN	15

SDRAM w/ EEPROM

32 MB SDRAM 10ns (4x64)	50
64 MB SDRAM 10ns (8x64)	90
128 MB SDRAM 10ns (16x64)	185

KEYBOARDS

104 Win95 keys/Mitsumi 104	13
Keytronic Win95/PS2	25
Focus 2001/Focus7200 + Trackball	28/35

MISCELLANEOUS

NetMouse PS2	12
Logitec Mouse 2 buttons/3 buttons	10/15
Logitec MouseMan serial/PS2-3but	25
Microsoft Mouse (w/system)	25
Microsoft IntelliMouse (w/system)	35
1 44 Teac Floppy Drive	23
CPU Cooling Fan 486/P5 75-233	5
CPU Ballbearing Fan for Pentium II	15
120 watt/180 watt Speakers	10/30
YAMAHA M7/M15 Speakers	45/75
YAMAHA Subwoofer system 45	170
VCD Karaode Music full screen $10 each	
VCD movie full screen XXX $10 each	

Pentium is a Registered trademark of Intel Corp

MULTIMEDIA

Yamaha stereo sound 16 PnP	15
Creative Labs Soundblaster 16	35
Creative Labs Soundblaster AWE 64 /GOLD	59/155
Creative Labs ENSNIQ PCI	45
NEC 4x4 EIDE CD-ROM	49
SONY 24x E-IDE CD-ROM	65
TOSHIBA 24x / 32x E-IDE CD-ROM	65/75
CREATIVE LABS 24x E-IDE CD-ROM	65
TOSHIBA 32xSCSI CD-ROM	100
MITSUMI 2x8 CD RECODER IDE	280
YAMAHA CD WRITER 2x4x6 internal SCSI	560
MITSUBISHI 2x2x6 REWRITER external SCSI	415
Creative Labs Encore DXR-2 DVD (retail box)	270
TOSHIBA DVD w/ magic card kit	240

CASES

Mini Tower Case w/ 250 watt P S	25
Desktop AT case w 250 watt P S	35
Medium/Full Tower w/ 250 watt P S	45/65
ATX Mid Tower w/250 watt (2 sides open)	60/80
ATX Medium Tower case w/250 watt P S	65/80
ATX Full Tower 250 watt / 300 watt P S	90/125

HARD DRIVERS

Fujitsu 3.20/4 30 UltraDMA33	145/165
Fujitsu 5 20/6 40 UltraDMA33	190/220
Quantum 3.20/4.30 UltraDMA33	155/175
Quantum 6 4/8 4 UltraDMA33	210/300
Western Digital 2 50/3 20	145/155
Western Digital 4 30/5 10/6 40	170/195/225
Quantum 2 10/3 20 SCSI	199/240
Quantum 6 40 SCSI	365
IBM 4 50/9 10 ULTRA WIDE SCSI	350/625

VGA

S3 SVGA PCI 1 MB/2MB video	25/30
S3 Virge 3D 64 PCI 4MB	49
Intel i740 chip 8MB X2 AGP	95

ATI

ATI VIDEO + TV card PCI 4MB	155
ATI All-in-Wonder Pro 4/8MB PCI	230/280
ATI All-in-Wonder Pro 4/8MB AGP	240/290
ATI Xpert 98 8 MB EDO AGP	95
ATI Xpert @ Work PCI 4/8MB	85/125
ATI Xpert @ Work AGP 4/8MB	90/130
ATI Xpert @ Play PCI 4/8MB	100/140
ATI Xpert @ Play AGP 4/8MB	105/145

MATROX

Memory for Millennium I 2 MB	40
MT Millennium II PCI 4mb/retail	130/150
MT Millennium II PCI 8MB/retail	170/200
MT Millennium II AGP 4MB/8MB	140/185
Matrox Mystique PCI 2mb	50
Matrox Mystique PCI 4mb (retail)	110

DIAMOND

Stealth 64 3D 3000 4mb VRAM	90
Stealth II S220 PCI 4mb	85
MPEG Card upgrade (M1100)	50
Fire GL 1000 Pro 4MB PCI	115
Fire GL 1000 Pro 8MB AGP/PCI	180
Viper 330 PCI/AGP 4MB	95
Diamond Monster 3D PCI 4MB	120
Diamond Monster II 3D PCI 8/12	225/295

NETWORK CARD

3Com 3C905B TX PCI/100Base	70
NE 2000 PnP 10 BaseT	25

FAX MODEM

33.6 Fax Modem w/ voive	45
56K Fax Mode w/ voice	60
Diamond Supra 56i voice	62
US Robotics 56K/voice/V 90	75/90/145

TERMS AND CONDITIONS
1 - One year parts and labor warranty * 2 - Not responsible for typos
3 - Price and availability subject to change w/o notice
4 - 15% restocking fee on returns No refund after " days
5 - Prices based on cash or checks only

THE BEST PRICE IN TOWN!

MMX 686 Pentium® II

400MHz.....$1095
350MHz.....$845

- Intel CPU
- 512K CPU Cache
- Intel 440BX Chipset
- Heat Sink & CPU Fan
- 0MB Expandable to 384MB on Board
- 1.44MB Floppy Drive
- Enhanced IDE w/16550 I/O
- ATX Mid-Tower Case
- 104 Enhanced Keyboard

MMX 686 Pentium® II

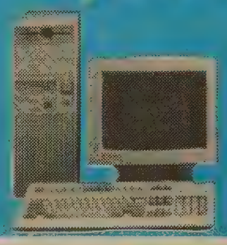
333MHz $725
300MHz $615
266MHz $495
233MHz $440

- Intel CPU
- 512K CPU Cache
- Intel 440LX Chipset
- Heat Sink & CPU Fan
- 0MB Expandable to 384MB on Board
- 1.44MB Floppy Drive
- Enhanced IDE w/16550 I/O
- ATX Mid-Tower Case
- 104 Enhanced Keyboard

**Prices do not include Hard Disk, Display or RAM*

Optional for Systems

PCI SVGA Card 1MB/2MB $25/35
15" SVGA Monitor w/2MB PCI Card $205
Non-Interlaced SVGA Monitor (1024x768, .28) w/VESA/PCI SVGA Card 1MB $160



2.1GB.....$135
2.5GB.....$145
3.2GB.....$150
4.3GB.....$175
6.4GB.....$225
8.4GB.....$310

MMX 586 Pentium®

233MHz $320
200MHz $290

- Intel Pentium® MMX CPU
- Heat Sink & CPU Fan
- 0MB Expandable to 128MB on Board
- Intel Triton Chipset w/512K Pipeline Cache
- 1.44MB Floppy Drive
- Enhanced IDE w/16550 I/O
- Tower or Desktop Case w/Power Supply
- 104 Enhanced Keyboard

586 Pentium®

166MHz $270
150MHz $265
120MHz $260

- Intel Pentium® CPU
- Heat Sink & CPU Fan
- 0MB Expandable to 128MB on Board
- Intel Triton Chipset w/512K Pipeline Cache
- 1.44MB Floppy Drive
- Enhanced IDE w/16550 I/O
- Tower or Desktop Case w/Power Supply
- 104 Enhanced Keyboard

**Prices do not include Hard Disk, Display or RAM*

BELMONT SYSTEMS INC.

(Belmont Computer Products)

1509 Industrial Road, San Carlos, CA 94070

NEW LOCATION Bigger facility to serve you better!

(650) 598-9058
FAX (650) 598-0186
Store Hours: M-F 9-6
new hours

PRICE IS NOT ALL WE OFFER:

BEST QUALITY • STRONGEST SUPPORT STAFF • 10 YEARS BUSINESS EXPERIENCE

UPGRADE & REPAIR

For All Brand PC & Compatibles

- Free estimates
- No appointment required
- Same day turnaround

NOVELL

Sales...
Custom Design Service...
Installation and Maintenance...
Extended Software Support...

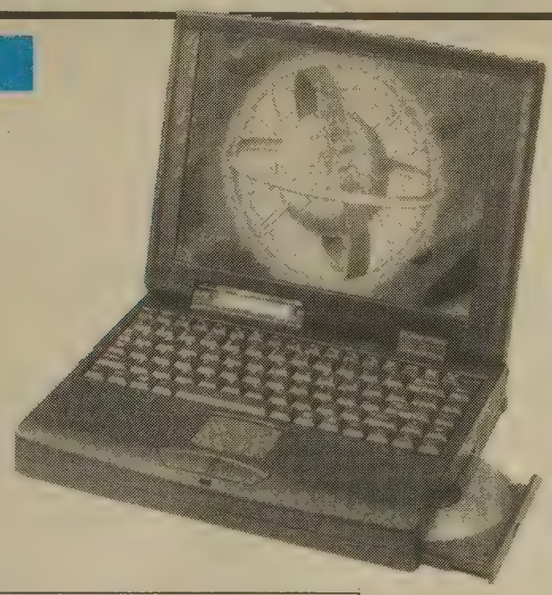
Available through

STEPFORD
1-800-HLP-U-NET

Notebook

- Intel Pentium® CPU
- 32MB RAM
- 2.1 GB Harddisk
- 512K Pipeline - Burst Cache
- 3.5" 1.44MB FDD, Exchangeable w/ optional secondary battery
- 20X CD-ROM
- 2MB PCI Video RAM
- 16-Bit Sound Card w/Speakers
- 3 Type II or 1 Type II & 1 Type III Slots
- NiMH Battery, AC Adapter, Carrying Bag

Optional: 3.2GB Add $50
64MB Add $95
33,600 Fax Modem Add $70
56K Fax Modem Add $115



12.1" Active Matrix

166MMX	$1,700
200MMX	$1,720
233MMX	$1,750

INTERFACE CARDS

Trident SVGA w/1MB RAM	45
PCI SVGA Card 1MB/2MB	35/45
Diamond 3D 4000 4MB	$85
Diamond 3D 2000 PCI 2MB/4MB	60/80
Diamond Stealth II S-220 4MB	95
Matrox Millennium II 4MB	135
IDE I/O w/16550 UART	35
Adaptec 1522	90
Adaptec 2940 PCI SCSI	170
Adaptec 2940UW/Cable	195

Free Installation w/Any Parts Purchased

HARD DISKS

2.0GB	$150
2.5GB	160
3.1GB	165
4.3GB	190
6.4GB	240
8.4GB	325
2.0GB SCSHI	220
4.0GB SCSHI	310

MOTHERBOARD

586-233MHz w/Intel MMX CPU & Fan	$240
586-200MHz w/Intel MMX CPU & Fan	210
586-166MHz w/Intel CPU & Fan	190

SOUND CARDS

16-Bit Sound Card	$35
Sound Blaster 16	45
Sound Blaster AWE 64	75

KEYBOARDS

101 Enhanced Keyboard	$15
Keytronic 104 Key	25
Maxiswitch 101 Key	25

FLOPPY DRIVE

TEAC/Mitsumi 1.44MB 3.5"	30

MISC.

230W Power Supply	$35
Logitech Mouse Man	25
Logi Trackman	50
DFI Mouse (3 Button, Microsoft Comp.)	15
Mini Vertical Case w/PS	45
Med Vertical Case w/PS	60
Full Vertical Case w/PS	70
3.2GB Tape Drive w/TR-3 Cartridge	175
Iomega Jaz SCSI 1.0GB Int.	285
Iomega Zip Dr. 100MB Int w/ Cartridge	100
Iomega Zip Dr. 100MB Cartridge	15
16-Bit Ethernet Card	25
3COM 3C509	55
3COM 3C905 10/100	70
Intel Ether Express Pro 100	65
RAM DIP/SIPP/SIMM	Call

Free Installation w/Any Parts Purchased

CD-ROMS

24XI	70
32XI	75
16X SCSI	95
32X SCSI	110

MODEMS

33,600 Fax/Modem V.34	$55
56K Fax/Modem	75
56K External	95
US Robotics 33,600 Sportster Int	85
US Robotics 56K Int.	95
US Robotics 56K Int. w/Voice	115
US Robotics 56K Ext. w/Voice	170

MONITORS

14" Non-Interlaced	$135
15" NI 1280x1024 .28	170
17" NI 1280x1024 .27	285
Sony 17" 1280x1024 .25	585
ViewSonic G771 17" 1280x1024 .27	395
ViewSonic P775 17" 1600x1280 .25	510

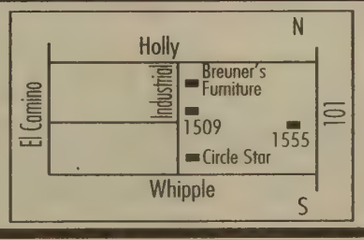
TERMS AND CONDITIONS:

- Company, Government POs Welcome
- UPS Shipping Daily

All Prices and contents subject to change w/o notice.

Welcome to visit our showroom!
Computers, Monitors are now on display!
Prices reflect Cash Discount.

Located in the
San Carlos Commerce Center Office Park



Reality Check: Assembly

Cases, Cables, Etc.

By Fabian Pascal

The case must keep the temperature low enough for proper operation and long life of all components, particularly for 100MHz bus systems with 300MHz+ CPUs and hot 7,200RPM and up disk drives This requires a high-quality, well-designed and engineered case from a reputable vendor, certified for such systems and components.

The previous articles in this series discussed the basics of, and trends in, PC technologies and components: system board, processor subsystem (CPU, memory); graphics subsystem (monitor, graphics adapter); and disk subsystem (disk controller, drives, cables), assembly (case, drive enclosures, power supply).

I've been testing and benchmarking the currently recommended 66MHz bus (PC66) system (Listing 1) for quite a while. The next several articles will discuss the results, in the same order: assembly, processor, graphics, and disk subsystems. All this, to recap, is in preparation for the new, 100MHz bus systems (PC100), which will be compared to the current system to gauge the gains, if any.

You may want to hold on to these articles—or access them at the *MicroTimes* site—so you can interpret the findings in the proper context.

Updates

Things are moving in all PC areas. Intel is shipping the new PII/350 and PII/400 CPUs for PC100 Slot 1 systems; system boards based on the Intel BX chipset are already available. Super7—100MHz bus Socket 7—system boards based on VIA and Aladdin chipsets are forthcoming, together with AMD's K6-2 CPU (previously known as K6-3D).

So I've begun work on putting together two 100MHz systems: One based on Abit's BX6 Slot 1 main board; and a Super7 one using a system board based on one of the non-Intel chipsets (VIA or Aladdin) and a K6-2 CPU. Both systems will include the new PC100-compliant 8ns SDRAM (very important!!), better CPU coolers, and possibly new cases. Since the 100MHz bus and faster SDRAM allow exploitation of AGP, I am looking into graphics adapters from ATI, Matrox, and Diamond. The forthcoming Windows NT 5.0 will support AGP.

NT 5.0 will also support the Universal Serial Bus (USB). At that point I will be looking at all-in-one devices—scanner, printer, copier, and fax—hopefully color laser (rather than inkjet) based; and later on, 19"/21" LCD panels, when 21" ones become affordable. You should note that I added the Logitech Cordless Desktop—mouse and keyboard combination—to the recommended system, and I hope a USB version will become available.

There are also new developments in the removable drive arena—both the gigabyte and floppy segments—as well as in the CD-ROMs; I am soliciting review units from vendors.

I've been holding back on another important subsystem, communication. What seem to be the best solutions for fast Internet access—cable modem and Digital Subscriber Line (DSL)—are either unavailable, or too expensive for the individual user. Until TCI comes up with a cable solution in San Francisco (likely via @Home) and force both Pacific Bell and Covad to compete price-wise, the only option remains ISDN, which is not sufficiently fast for the price. A possible solution, if temporary, could be connecting two 56K modems over two phone lines, but 3Com's OfficeConnect LAN Modem is network oriented, while Diamond's shotgun, geared to individuals, does not work under NT yet. I will be monitoring developments and cover the first of these solution, when appropriate.

You can find information and links that, due to space constraints, cannot be included in the articles (e.g. recommended software, benchmark descriptions, resources links, etc.), at the series' page on the *MicroTimes* site (see Resources for the URL).

Now to the system's assembly components.

A Cool Case

One aspect which required more attention than I originally anticipated was cooling. The case must keep the temperature low enough for proper operation and long life of all components, particularly for 100MHz bus systems with 300MHz+ CPUs and hot 7,200RPM and up disk drives. For the user this means a high-quality, well-designed and engineered case from a reputable vendor, certified for such systems and components.

continued on page 90

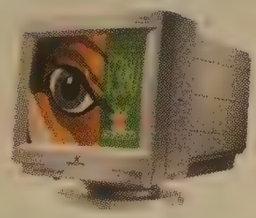
Bay Area Micro is your #1 Source for Decaview Monitors!

V260 15"Color Monitor

.28mm Dot Pitch
1280X1024Max
1024X768@85Hz

$139

V380 17" Color Monitor



.27mm Dot Pitch
1280X1024Max
1024X768@85Hz

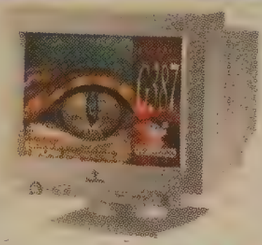
$199

G380 17" Color Monitor

.25mm Dot Pitch
1280X1024Max
1024X768@85Hz

$245

G387 17" Color Monitor



.25mm Dot Pitch
1600X1200Max
1024X768@115Hz

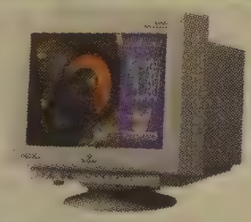
$299

GA387 17" Color Monitor

.25mm AG
Stripe Pitch
1600X1200Max
1024X768@115Hz

$379

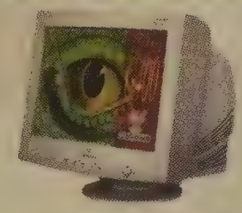
PA380 17" Color Monitor



.25mm AG
Stripe Pitch
1600X1200Max
1024X768@119Hz

$439

G400 19" Color Monitor



.25mm Dot Pitch
1600X1200Max
1024X768@115Hz

$489

PA630 21"Color Monitor

.25mm AG
Stripe Pitch
1800X1440Max
1024X768@129Hz

$789

DP140 Color LCD

.27mm Pixel Pitch
1024X768Max
13.8 Viewable

$999

DP150 Color LCD

.29mm Pixel Pitch
1024X768Max
15.0 Viewable

$1099

Bay Area Micro is your #1 Source for Name Brand Parts!

MOTHERBOARDS

Model	CPU	Chipset	Price
Abit PD5N w/video	P75-233	SIS 5598	$75
Abit PX5	P75-233	Intel 430TX	$75
Abit TX5	P75-233	Intel 430TX	$85
Abit AX5	P75-233	Intel 430TX	$88
Abit LX6	PII233-333	Intel 440LX	$109
Abit BX6	PII233-450	Intel 440BX	$149
ASUS SP97V w/video	P75-233	SIS 5598	$75
ASUS TX97L/LE	P75-233	Intel 430TX	$105
ASUS TX97X/XE	P75-233	Intel 430TX	$115
ASUS P2L97	PII233-333	Intel 440LX	$125
ASUS P2L97S	PII233-333	Intel 440LX	$215
ASUS P2B	PII233-450	Intel 440BX	$165
ASUS P2BS	PII233-450	Intel 440BX	$295
ASUS P2BDS	PII233-450	Intel 440BX	$Call
Intel Atlanta w/sound	PII233-333	Intel 440LX	$155
Intel Seattle w/PCI sound	PII233-450	Intel 440BX	$205

HARD DRIVES

Model	CPU	Chipset	Price
Quantum Fireball SE	4.3GB	Ultra-ATA	$159
Quantum Fireball SE	6.4GB	Ultra-ATA	$189
Quantum Fireball SE	8.4GB	Ultra-ATA	$279
Quantum Fireball EL	5.1GB	Ultra-ATA	$Call
Quantum Fireball SE	7.1GB	Ultra-ATA	$Call
Quantum Fireball EL	10.3GB	Ultra-ATA	$Call
Quantum Bigfoot TX	4GB	Ultra-ATA	$149
Quantum Bigfoot TX	6GB	Ultra-ATA	$169
Quantum Bigfoot TX	8GB	Ultra-ATA	$239
Quantum Bigfoot TX	12GB	Ultra-ATA	$379
Quantum Atlas III	9.1GB	Ultra 2 Wide	$849
Quantum Atlas III	18GB	Ultra 2 Wide	$Call
Quantum Viking II	4.3GB	Ultra 2 Wide	$439
Quantum Viking II	9.1GB	Ultra 2 Wide	$799
Maxtor All models	4.3-11GB	Ultra-ATA	$Call
Western Digital	4.3-8GB	Ultra-ATA	$Call
Seagate	4.3-9.1GB	Ultra-ATA	$Call

Printers/Ink Cart./Toners

Model	Price
Epson Stylus Color 400	$179
Epson Stylus Color 600	$229
Epson Stylus Color 800	$279
Epson Stylus Color 850	$365
HP Deskjet 672C	$189
HP Deskjet 694C	$219
HP Deskjet 722C	$279
HP Deskjet 890Cse	$379
HP Laserjet 6Lse	$379
HP Laserjet 6Pse	$775
HP Laserjet 4000Se	$1099
HP Laserjet 4000N	$ 1399
HP Officejet 3100	$675
92274A Toner for LaserJet 4L,4ML,4MP,4ML	$50
92275A Toner for LaserJet IIP,IIP Plus,IIIP	$60
92291A Toner for LaserJet IIIsi,4si,4siMx	$110
92295A Toner for LaserJet Series II,IID,III,IIID	$60
92298A T. for LaserJet 4,4+,4M,4M+,5,5se,5M,5N	$80
C3903A T. for LaserJet 5P,5MP,6P,6Pse,6MP,6Pxi	$85
C3906A T. for LaserJet 5L,5Lxtra,6Lse,6Lxi,6L	$60
C3909A T. for LaserJet 5Si,5SiMX,5Si Copier	$145
51626A Black Cart. for DJ+, 400,500C,520,540 550C,560C,Officejet LX,300,350	$19
51625A Color Cart.for DW C,510,520,540,550C	$20
51629A Black Cart. for DJ 600,600C,660Cse 670C,682C,692C,693C,694C	$22
51649A Color Cart. for DJ 600,600C,660Cse 670C,682C,692C,693C,694C	$22
C1816A Photo Cartridge for DJ 693,694C	$28
51641A Color Cart. for DJ820Cse,850,870Cse	$20
51645A Black Cart. for DJ820Cse,850,870Cse 722C,1600,100Cse	$20
C1823A Color Cart. for 722C,890	$25

CPU'S AND MEMORY

Model	Price
Intel Pentium 200MMX	$Call
Intel Pentium 233MMX	$Call
Intel Pentium II 233MMX	$Call
Intel Pentium II 266MMX	$Call
Intel Pentium II 300MMX	$Call
Intel Pentium II 333MMX	$Call
Intel Pentium II 350MMX	$Call
Intel Pentium II 400MMX	$Call
Intel Pentium II 450MMX	$Call
AMD K6 200MMX	$Call
AMD K6 233MMX	$Call
AMD K6 266MMX	$Call
AMD K6 300MMX	$Call

CD-ROM/CD-R/CD-RW DRIVES

Model	Price
Toshiba 24X IDE	$69
Toshiba 32X IDE	$79
Toshiba 32X SCSI-2	$99
Plextor 32X Internal Ultra-SCSI	$179
Mitsumi 8X2 Internal IDE CD-R	$259
Yamaha 4260 6X4X2 Internal SCSI-2 CD-RW	$499
HP 7200 6X2X2 Internal IDE CD-RW	$399
HP 7200 6X2X2 External Parallel CD-RW	$499
Ricoh 6X2X2 Internal SCSI-2 CD-RW	$399
Ricoh 6X2X2 Internal IDE CD-RW	$379
Ricoh 6X2X2 External Parallel CD-RW	$499
Creative DVD-Rom Internal IDE	$149
Creative Encore DVD Kit w/Decoder	$259

B.A.M. Bay Area Micro

We carry all brand names, call us for all your needs!

AMD · CREATIVE · ASUS · ATi · DFI · ViewSonic · Western Digital · NEC · Intel inside pentium

AGP EXPERT STATION P2/300, 19" Monitor, 128MB, 8.4GB, 32X $2,219

- DFI P2XBL Intel 440LX MB
- Intel Pentium II w/MMX
- 128MB SDRAM w/EEPROM
- 1.44MB Floppy Drive
- Quantum/Maxtor 10GB Ultra-ATA HD
- Toshiba 32X IDE CD-ROM Drive
- Diamond Stealth II G460 8MB 2X AGP Video Card
- Creative Sound Blaster 64PCI Sound Card
- Diamond Supra 56K PCI v.90 FaxModem w/Voice
- ATX Super-Mid Tower Case
- Multimedia PS/2 Keyboard w/Hot Key
- Microsoft PS/2 Intellimouse
- Creative PC Works Stereo Speakers w/Subwoofer
- Decaview G400 19" (18.0"v) .26 Monitor
- Microsoft Windows 98 Full Version
- Corel Office 7 Professional Full Retail Package

intel inside pentium II

P2/350	P2/400	P2/450
$2469	$2669	$CALL

POWER UPGRADES FOR BAM SYSTEMS

Hardware

- 64MB SDRAM to 128MB SDRAM (+$90)
- 128MB SDRAM to 256MB SDRAM (+$180)
- Iomega Zip Drive (+$88)
- Teac 1.44 FDD to LS120 FDD (+$108)
- 6.4GB Ultra-ATA to 8.4GB Ultra-ATA ($80)
- 8.4GB Ultra-ATA to 12.0GB Ultra-ATA (+$160)
- Creative 3D Blaster Voodoo2 8MB (+$200)
- Creative 3D Blaster Voodoo2 12MB (+$260)
- Diamond Monster 3D II Voodoo2 8MB (+$210)
- Diamond Monster 3D II Voodoo2 12MB (+$270)
- Creative Ensoniq PCI to Creative AWE64 Gold (+$110)
- Creative 64 PCI to Creative AWE Gold (+$45)
- 3Com Fast Etherlink XL 3C905-TX (+$65)
- Intel EtherExpress Pro / 100 (+$55)
- 320W Speakers to Creative PC Works (+$60)
- 320W Speakers to Altec Lansing ACS45 (+$55)

Creative PC Works to Creative Sound Works (+$50)

Creative Sound Works to Creative Micro Works (+$75)

Software

- Microsoft Windows 98 to Windows NT 4.0 (+$40)
- Microsoft Home Essentials (+$95)
  Word 97, Works 4.0, Internet Explorer, MS Arcade
  The Microsoft Network, Encarta 97,
  Microsoft Greetings Workshop
- Microsoft Office 97 Professional (+$165)
  Word 97, Excel 97, Outlook 97, Access 97
  Powerpoint 97, Microsoft Binder
- Microsoft Office 97 Small Business Edition (+$155)
  Word 97, Excel 97, Outlook 97, Publisher 97,
  Small Business Financial Manger 97,
  Automap Streets Plus

Monitors

- Decaview G380 to Decaview G387 (CALL)
- Decaview G387 to Decaview GA387 (CALL)
- Decaview GA387 to Decaview PA380 (CALL)
- Decaview PA380 to Decaview G400 (CALL)
- Decaview G400 to Decaview PA630 (CALL)

AGP EXPERT STATION-S

- DFI P2XBL-S Intel 440LX MB w/Adaptec U2W SCSI
- Intel Pentium II w/MMX
- 128MB SDRAM w/EEPROM
- 1.44MB Floppy Drive
- Quantum 9.1GB 80MB/sec Ultra 2 Wide SCSI HD
- Plextor 32X Ultra SCSI CD-ROM Drive
- Diamond Stealth II G460 8MB 2X AGP Video Card
- Creative Sound Blaster 64PCI Sound Card
- Diamond Supra 56K PCI v.90 FaxModem w/Voice
- ATX Super-Mid Tower Case
- Multimedia PS/2 Keyboard w/Hot Keys
- Microsoft PS/2 Intellimouse
- Creative PC Works Stereo Speakers w/Subwoofer
- Decaview G400 19i (18.0iv) .26 Monitor
- Microsoft Windows 98 Full Version
- Corel Office 7 Professional Full Retail Package

P2/350	P2/400	P2/450
$3099	$3299	$CALL

Many more options available!
Please call for unlisted parts.
We carry all major name brands!

Terms & Conditions (complete details available upon request): Prices reflect cash/certified funds discounts. Prices subject to change without notice. Not responsible for typographic errors. 15% restocking fee on all returns including complete systems. Shipping, handling and insurance are extra and non-refundable. Opened software is non-returnable (except pre-installed OS). Absolutely no refunds after 30 days. All brands and product names are trademarks of their respective companies.

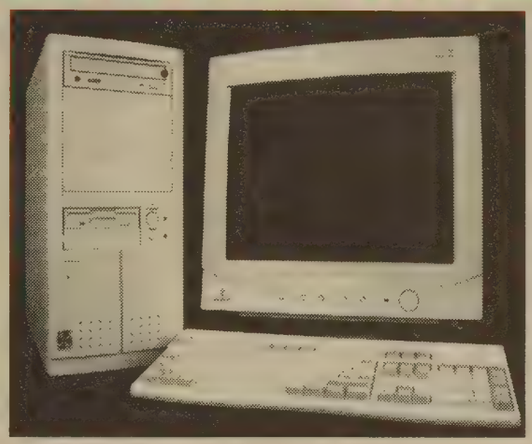
B.A.M.
Bay Area Micro

3-YEAR PARTS AND LIFETIME LABOR WARRANTY

CORPORATE, GOVERNMENT AND EDUCATIONAL POS WELCOME

AGP PRO STATION P2/233, 17" Monitor, 64MB, 6GB, 32X $1,299

- DFI P2XLX Intel 440LX
- Intel Pentium II 233Mhz w/MMX
- 64MB SDRAM 10ns w/EEPROM
- 1.44MB Floppy Drive
- Quantum 6GB Ultra-ATA HD
- Toshiba 32X IDE CD-ROM Drive
- Intel i740 8MB 2X AGP Video Card
- Creative-Ensoniq AudioPCI Sound Card
- Diamond Supra 56K PCI v.90 Fax Modem w/Voice
- Enlight ATX Mid Tower Case
- Mitsumi PS/2 Keyboard & Mouse
- 320W Stereo Speakers
- Decaview V380 17" (16.0"v) .27 Monitor
- Microsoft Windows 98 Full Version
- Corel Office 7 Professional Full Retail Package

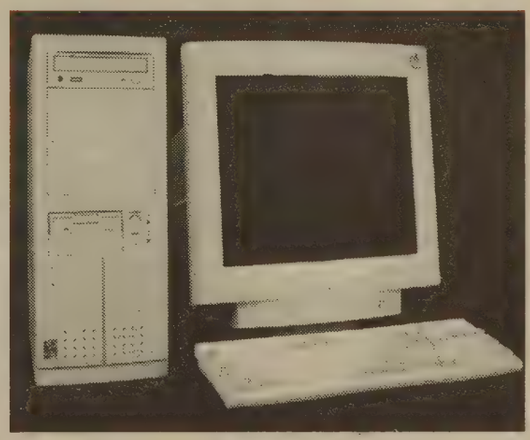


intel inside pentium II

P2/266	P2/300	P2/333
$1369	$1469	$1599

AGP DREAM STATION P2/300, 17" Monitor, 64MB, 8GB, 32X $1,649

- DFI P2XBL Intel 440BX
- Intel Pentium II 300Mhz w/MMX
- 64MB SDRAM w/EEPROM
- 1.44MB Floppy Drive
- Quantum 8GB Ultra-ATA HD
- Toshiba 32X IDE CD-ROM Drive
- Intel i740 8MB 2X AGP Video Card
- Creative-Ensoniq Audio PCI Sound Card
- Diamond Supra 56K PCI v.90 w/Voice
- Enlight ATX Mid Tower Case
- Mitsumi PS/2 Keyboard & Mouse
- 320W Stereo Speakers
- Decaview G380 17" (16.0"v) .25 Monitor
- Microsoft Windows 98 Full Version
- Corel Office 7 Professional Full Retail Package



intel inside pentium II

P2/350	P2/400	P2/450
$1869	$2069	$CALL

B.A.M. Bay Area Micro

408.260.8796
Fax: 408.260.8797

1158 SARATOGA AVE.
SAN JOSE, CA 95129

STORE HOURS Mon-Fri: 11am-6:30pm
Closed Sat & Sun

continued from page 86

It also means that the case should allow for multiple, properly positioned fans. The California PC Products (CalPC) case accepts two additional fans in front, under the drive bays, but they are optional, so they should be explicitly ordered.

Retail CPUs come with coolers—heatsink and fan—but you may want to consider a better one (particularly if you intend to overclock, that is, run the CPU at a higher speed than it is certified for; more on this in future articles). If you find an OEM who will sell you an OEM version of the CPU (that is, one without the cooler), you can use the savings to get a better one than those that come with the retail version.

Faster, hotter drives should be positioned closer to fans. The bottom two bays in the CalPC case are best for the 10,000RPM IBM and 7,200RPM Quantum drives but, unfortunately, obstruction by the structure for card insertion makes cable connections to drives in those bays quite cumbersome. For the same reason, removable drive enclosures are too deep to fit there.

Systems have become very sensitive to any small quirk; potential sources of problems have increased considerably, and have become more difficult to diagnose, so be prepared for them.

So for the IBM Ultrastar I use a cooling enclosure—CalPC's Bay Cooler—which has two front fans of its own. Unfortunately, it is not removable and does not offer conveniences such as SCSI ID setting and termination, as removable enclosures do.

For such features and removability, Kingston's Data Express enclosures allow the drive to be screwed into the carrier, preventing vibration (which IBM strongly warns against); they also have a hot swap option, which allows drive removal/insertion while system is on (care should be exercised); and it provides both termination and SCSI ID setting. But they have no fans.

Furthermore, the DE-100 model I started with is a tad higher, to handle thicker, 1'6" drives like the Ultrastar, and you'll lose the bay above it (even a bay bezel that comes with the case to prevent dust from getting into the system doesn't fit over the gap). Kingston now has a DE-75 model, which has normal height and thus fits regular 1" high drives. CRU's Data Port VI, sold by CalPC, has no screws for the drive, no termination settings and no hot swap, but has a back fan.

For removable drives such as the SyJet, Kingston's DE-150 enclosure will do. As it turns out, however, you must also get the DX-100 kit which adjusts the enclosure to the SyJet; otherwise the drive won't fit into it. The DE-75 has the same features as the DE-100, including height and lack of fans.

Monitoring system voltages, temperature and fan operation, and being alerted of problems is a good idea, but the system board must implement special chips that support this. Current Socket 7 boards generally have the LM78 (voltage, board temperature and fans speed) and the LM78 (CPU temperature) built-in. Slot 1 boards may have only the LM78, since the CPU is not really on the board and the manufacturer may have not provided the LM75 on its own.

If the LM78 is installed, a section in BIOS shows voltages, fan speed, and system board temperature (LM78); it also shows CPU temperature if the LM75 is installed. But monitoring via the BIOS is not practical, particularly since there are no alerts. The solution is a software utility which monitors the data on the desktop and alerts you to problems, e.g. the Motherboard Monitor, which runs on NT.

Listing 1: Recommended 66MHz Bus System (PC66)

System Board

SY-6KB, $160 (direct)
SOYO Tek
(818)330-1712
www.soyo.com

Processor Subsystem

Pentium II/300MHz Processor, $720 (direct)
US Computers
(562)651-2345
uscomputers@csinets.com

64/128MB 10ns/66MHz SDRAM DIMMs
64MB, $249 (direct)
128MB, $489 (direct)
Unigen Corp.
(510)668-2088
www.unigen.com

Graphics Subsystems

FlexScan FX-E8 21" monitor, $2079–$2435
Eizo-Nanao Technologies
(562)431-5011
www.eizo.com

Xpert@Work AGP Graphics Adapter 8MB, $91–$105
ATI Technologies Inc.
(905)882-2600
www.atitech.com

SCSI Disk Subsystem

AHA2940UW UltraWide controller, $125–$150
Adaptec Inc.
(408)945-8600
www.adaptec.com

UltraStar 9ZX UltraWide 9GB disk drive, $1,130
IBM Storage Systems Division
1-800-IBM-7777
www.ibm.com/storage

Viking II 9GB UltraWide disk drive, $895 (MSRP)
Quantum Corp.
(408)894-4000
www.quantum.com

SyJet 1.5GB Removable disk drive, $259–$300
SyQuest Technology
(510)226-4000
www.syquest.com

UltraPlex 32X/CAV CD-ROM UltraSCSI drive, $280–$331
Plextor Corp.
1-800-886-3935
www.plextor.com

SCSIVue Gold Cables
68pin HD Ultrawide Teflon Ribbon w. terminator (per # of drives)
50pin Centronics Teflon Ribbon w. terminator (per # of drives)
External Gold Diagnostic 68pin-to-50pin HD, $89
SCSIVue Gold Diagnostic Active Terminator 50pin HD, $79 (direct)
Granite Digital
(510)471-6442
www.scsipro.com

SuperDisk LS-120 IDE floppy drive, $117–$128
Imation Enterprises Corp.
1-888-466-3456
www.imation.com

Mouse/Keyboard

Cordless Desktop (keyboard and mouse), $99 (MSRP)
Logitech Inc.
(510)713-4220
www.logitech.com

Assembly

ATX Lockable MidTower Case, $191 (direct)
ATX 300W Power Supply, $88.50 (direct)
2 x 80mm Ball-Bearing Fans, $14.50 each (direct)
Bay Cooler, $32.50 (direct)
Data Port VI Removable Module (hard drives), **$145** (direct)
California PC Products
(408)637-2250
www.calpc.com

Data Express Removable Enclosures
DE-75 (hard drives), **$207** (MSRP)
DE-150 SCSI (removable disks), **$186** (MSRP)
DX-100 Kit Option, $29 (MSRP)
Hot Swap Option, $64 (MSRP)
Kingston Technology
1-888-435-5461
www.kingston.com

System integration service (per-case)
DSi
1629 Jackson St.
San Francisco, CA 94109
(415)922-4366
www.dsi2000.com

(Prices are mail order, unless specified otherwise)

THE MOBILE COMPUTING PROFESSIONALS

SALES • SERVICE • LEASING

SHOP AND COMPARE BEFORE YOU BUY!

FUTURE COMPUTING SOLUTIONS INCORPORATED

IBM

Model	Processor	Ram	HD	Screen	Price
ThinkPad 380ED	Pent-™/166 MMX	16MB	2.1GB+8-20X	12.1 FRSTN	$1523.
ThinkPad 380ED	Pent-™/166 MMX	16MB	3.0GB+8-20X	12.1 Active	$2189.
ThinkPad 380ED	Pent-™/166 MMX	16MB	5.1GB+8-20X	12.1 Active	$2380.
ThinkPad 380XD	Pent-™/233 MMX	32MB	3.2GB+10-24X	12.1 HPA	$1999.
ThinkPad 380XD	Pent-™/233 MMX	32MB	4.0GB+10-24X	12.1 Active	$2570.
ThinkPad 380XD	Pent-™/266 MMX	32MB	5.1GB+10-24X	12.1 Active	$2952.
ThinkPad 380XD	P-II/233 MMX	32MB	4.0GB+10-24X	12.1 HPA	$2665.
ThinkPad 380XD	P-II/266 MMX	32MB	5.1GB+10-24X	12.1 Active	$3714.
ThinkPad 560E	Pent-™/166 MMX	16MB	2.1GB	12.1 Active	$1910.
ThinkPad 560X	Pent-™/200 MMX	32MB	2.1GB	12.1 HPA	$2210.
ThinkPad 560X	Pent-™/233 MMX	32MB	4.0GB	12.1 Active	$2963.
ThinkPad 600	Pent-™/233 MMX	32MB	3.2GB+10-24X	13.3 HPA	$2867.
ThinkPad 600	Pent-™/233 MMX	32MB	3.2GB	12.1 TFT	$2675.
ThinkPad 600	P-II/233 MMX	32MB	3.2GB+10-24X	13.3 TFT	$3822.
ThinkPad 600	P-II/266 MMX	32MB	4.0GB+10-24X	13.3 TFT	$4396.
ThinkPad 770	Pent-™/233 MMX	32MB	4.0GB	13.3 Active	$3393.
ThinkPad 770	Pent-™/233 MMX	32MB	4.0GB	13.3 Active	$3446.
ThinkPad 770	Pent-™/200 MMX	32MB	3.2GB	13.3 Active	$2867.
ThinkPad 770	Pent-™/233 MMX	32MB	4.0GB	13.3 Active	$3383.
ThinkPad 770	Pent-™/233 MMX	32MB	5.1GB	14.1 Active	$4157.
ThinkPad 770	P-II/266 MMX	32MB	5.1GB	14.1 Active	$4301.
ThinkPad 770	P-II/266 MMX	32MB	5.1GB	14.1 Active	$4396.
ThinkPad 770	P-II/266 MMX	64MB	8.1GB	14.1 Active	$5543.

Think Pad

- *Up to 8.1 GB*
- *14.1 Active Color Display*

TECRA 780DVD $5???

TECRA 750CDM $4???

SATELLITE PRO 490CDT $3???

TOSHIBA

In Touch with Tomorrow

Win95 INSTALLED

Model	Processor	Ram	HD	Screen	Price
50CT	Pentium™75	16MB	772MB	6.1 AMC	$678.
70CT	Pentium™ 120MMX	16MB	1.58GB	6.1 AMC	$1624.
100CT	Pentium™ 166MMX	32MB	2.02GB	7.1 AMC	$2399.
100CT-NT	Pentium™ 166MMX	32MB	2.02GB	7.1 AMC	$2590.
220CDS	Pentium™133	16MB	1.34GB+10X	12.1 Dual Scan	$1310.
430CDT	Pentium™120	16MB	1.2GB+10X	11.3 AMC	$1624.
440CDX	Pentium™ 133MMX	16MB	1.34GB+10X	12.1 Fast Scan	$1290.
440CDT	Pentium™ 133MMX	16MB	1.34GB+10X	12.1 AMC	$1624.
460CDX	Pentium™ 166MMX	32MB	2.02GB+10X	12.1 Fast Scan	$1534.
470CDT	Pentium™ 200MMX	32MB	2.02GB+10X	12.1 AMC	$2398.
480CDT	Pentium™ 233MMX	32MB	3.82GB+10X	12.1 AMC	$2590.
490CDT	Pent-II 233MMX	32MB	3.82GB+20X	12.1 AMC	$3395.
490XCDT	Pent-II 266MMX	32MB	3.82GB+20X	13.3 AMC	$3826.
490CDT-NT	Pent-II 233MMX	32MB	3.82GB+20X	12.1 AMC	$3587.
490XCDT-NT	Pent-II 266MMX	32MB	3.82GB+20X	13.3 AMC	$4017.
300CT	Pentium™ 133MMX	32MB	1.51GB	10.4 AMC	$1456.
300CT	Pentium™ 133MMX		3.87GB	10.4 AMC	$1650.
320CT	Pentium™ 266MMX	32MB	3.87GB	10.4 AMC	$3167.
510CDT	Pentium™ 133MMX	16MB	2.02GB+10X	12.1 AMC	$1399.
520CDT	Pentium™ 166MMX	32MB	2.02GB+10X	12.1 AMC	$2206.
520CDT	Pentium™ 166MMX	32MB	3.87GB+10X	12.1 AMC	$2398.
530CDT	Pentium™ 166MMX	32MB	2.02GB+10X	12.1 AMC	$2868.
530CDT	Pentium™ 166MMX	32MB	3.87GB+10X	12.1 AMC	$3078.
550CDT	Pentium™ 266MMX	32MB	3.82GB+20X	12.1 AMC	$3824.
730XCDT	Pentium™ 150MMX	16MB	2.1GB+6X	12.1 AMC	$1451.
740CDT	Pentium™ 166MMX	16MB	3.0GB+10X	13.3 AMC	$2628.
750CDM	Pentium™ 233MMX	32MB	4.77GB+20X	13.3 AMC	$4781.
750CDM-NT	Pentium™ 233MMX	32MB	4.77GB+20X	13.3 AMC	$4972.
750DVD	Pentium™ 233MMX	64MB	4.77GB+DVD	13.3 AMC	$5162.
780CDM	Pent-II 266MMX	64MB	5.1GB+20X	13.3 AMC	$4878.
780DVD	Pent-II 266MMX	64MB	5.1GB+DVD	13.3 AMC	$5262.
780CDM-8.1	Pent-II 266MMX	64MB	8.1GB+20X	13.3 AMC	$5262.
780DVD-8.1	Pent-II 266MMX	64MB	8.1GB+DVD	13.3 AMC	$5644.
780CDM-NT	Pent-II 266MMX	64MB	5.1GB+20X	13.3 AMC	$5069.

COMPAQ Laptops

Model	Processor	Ram	HD	Screen/OS	Price
1592DMT	P/233MMX	32/96MB	3.2GB+20X	12.1" Active Clr	$2998.
1540DM	P/150MMX	16/80MB	2.1GB+20X	12.1"Dual Scan	$1758.
4160T	P/166MMX	16/80MB	2.0GB	12.1"Dual Scan	$2318.
4210T	P/233MMX	32/96MB	3.2GB	12.1" Active Clr	$3198.
4220T	P/266MMX	32/96MB	4.0GB	12.1" Active Clr	$3648.
4160TSL	P/166MMX	16/80MB	2.0GB	12.1" Active Clr	$2278.
7330T	P/150MMX	16/128MB	2.1GB	12.1" Active Clr	$1388.
7350MT	P/166MMX	32/128MB	2.1GB	12.1" Active Clr	$2738.
7360DMT	P/200MMX	32/128MB	3.0GB+20X	12.1" Active Clr	$3198.
7370DMT	P/233MMX	32/128MB	4.0GB+20X	12.1" Active Clr	$3998.
7380DMT	P/266MMX	32/128MB	4.0GB+20X	12.1" Active Clr	$4288.
7380NT	P/266MMX	32/128MB	4.0GB+20X	12.1" Active Clr	$4378.
7730MT	P/166MMX	32/144MB	2.1GB	12.1" Active Clr	$3198.
7750MT	P/166MMX	32/144MB	3.0GB	12.1" Active Clr	$3198.
7770DMT	P/233MMX	32/144MB	3.0GB+20X	12.1" Active Clr	$3648.
7792DMT	P/266MMX	32/144MB	5.0GB+20X	13.3" Active Clr	$4838.
7792NT	P/266MMX	32/144MB	5.0GB+20X	13.3" Active Clr	$4928.
7790DMT	P/233MMX	32/144MB	5.0GB+20X	13.1" Active Clr	$4558.

COMPAQ Desktops

DP-2000	Pent-™/166MMX	16MB	2.1GB	W95	$788.
DP-2000	Pent-™/166MMX	16MB	3.2GB	W95	$798.
DP-2000	Pent-™/200MMX	16MB	2.1GB	W95	$855.
DP-2000	Pent-™/200MMX	32MB	3.2GB	W95	$942.
DP-2000	Pent-™/233MMX	32MB	3.2GB+16X	W95	$1128.

SERVICE

Let our "Computer Doctors" diagnose and repair your desktops or notebooks.

If we can't fix it, no one can!!

Authorized Premier Service Provider TOSHIBA

Factory authorized service center for:

- Toshiba* (*Premier Service Provider), HP,Compaq ,AST ,Zenith, Apple

TOSHIBA 510CDT

$1298

Pent-133MMX,16MB Ram,2.02GB HD, 10X CD-ROM, 1.44MB FDD, 256K Cache, 12.1" Act. Color, 2MB Video RAM, 28.8kbps fax/modem w/answering machine, 3 YRS parts & 1 YR labor

TOSHIBA 730XCDT

$1498

Pent-150MMX, 16MB Ram, 2.02GB HD, 10X CD-ROM, 1.44MB FDD, 256K Cache, 12.1" Act. Color, 2MB Video RAM, 28.8kbps fax/modem w/answering machine, 3 YRS parts & 1 YR labor

HARD DRIVE UPGRADES

Manufacturer	2.1GB	3.0GB	4.0GB
Toshiba*	$298.	$398.	$498.
Compaq*	$298.	$398.	$498.
IBM*	$298.	$398.	$498.

*Most Models

for Toshiba, Compaq, IBM, NEC, TI and other Laptops

Memory for Toshiba Tecra 710/720/730/740

64MB $398 128MB $698

DISCOVER VISA C.O.D. Cashiers Checks

Written authorization required on all credit cards for verification. We report to police for stolen cards

LOW, LOW PRICES

Future Computing Solutions, Inc.

"In Touch With Your Computing Needs"

Northern California • Alameda, CA 94502

Future Computing Solutions, Inc. Internet Address:www.FCSinet.com

(510) 337-9034 OR (510) 337-9036 FAX

Prices, terms and availability subject to change without notice. All sales are subject to Future Computing Solutions, Inc. standard terms and conditions of sale which are available upon request. All merchandise warranties apply. Limited time offers. While supplies last. All manufacturer warranties apply. Limited time offers. While supplies last. All manufacturer warranties apply. Limited time offers. While supplies last. All manufacturer

CHICOTEC

Your Complete PC Center

DUAL PENTIUM® II SUPER SERVER

- Intel Dakota DK440LX Dual Pentium II M.B.
- Two Intel Pentium II 300MHZ CPU & Fan
- 256MB SDRAM 168P DIMM
- Integrated PCI Ultra Wide SCSI Controller
- 4.5GB Ultra-Wide SCSI Hard Disk Drive
- Super Server Tower Case ATX
- 9 Front Accessible Internal 5-1/4" HH.Bays
- 2 Internal 5-1/4" H.H.Bays
- Triple Fan Air Ventilation
- Two Redundant Hot-Swap
- Pluggable Power Supply
- Maxi-Switch PS/2 Mouse
- 1.44MB Teac Floppy Drive
- Integrated Sound Device
- Matrox Millennium AGP 4MB WRAM
- Toshiba 32 x SCSI CD ROM
- 60W Amplified Speakers
- Microsoft Windows NT 4.0 Workstation

Powerful Dual Pentium II

Dual Pentium II 300MHz $3349

Dual Pentium II-333 ..... $3725

PENTIUM® II POWER STATION

- Intel Atlanta AL 440LX Motherboard
- Intel Pentium II 233MHz CPU & Fan
- 32MB SDRAM Memory
- ATX Mid Tower Case w/230W Power Supply
- Maxi-Switch PS/2 Keyboard
- Microsoft PS/2 Mouse
- Diamond Stealth 3D PRO PCI 2MB Video Card
- 1.44MB Teac Floppy Drive
- 4.3GB EIDE Hard Drive
- Integrated Sound Device
- 32X CD-Rom
- 60W Amplified Speakers
- Microsoft Windows 95
- 17" Decaview SVGA Monitor add $269

Pentium II 233MHz $998

Pentium II-266 ..... $1110
Pentium II-300 ..... $1260

PENTIUM® MULTIMEDIA SYSTEM

- Intel 430TX Chipset Motherboard
- Intel Pentium 166MHZ MMX CPU & Fan
- 32MB 72Pin EDO Memory 512K Cache
- Mini Tower Case w/230W Power Supply
- 104 Win95 Keyboard
- Microsoft Mouse
- Trident 9680 PCI 2MB Dram SVGA Card
- 1.44MB Floopy Drive
- 4.3GB EIDE Hard Drive
- 32X CD-Rom
- ESS 16Bit PNP Sound Card
- 60W Amplified Speakers
- Microsoft Windows 95
- 14" Impression SVGA Monitor add $165

Pentium MMX 166MHz $698

Pentium 200 MMX $708
Pentium 233 MMX $738

SERVICE CENTER

- **System Repair**
- **All Brand PC and Compatibles**
- **No Appointment required**
- **Free Estimates**
- **Fast Turnaround Service**
- **System upgrade**
- **Hard disk, Memory, CPU, Video Card**
- **Motherboard, CD ROM, Sound Card, Speaker, Monitor**
- **Custom Configuration**

Please Call, Fax or E-Mail for Quotes

NETWORK & COMMUNICATION

- Hardware & Software
- Novell Netware
- Network Design
- Windows NT
- Installation
- Cabling
- Maintenance
- Service Contract

Novell Certified NetWare Engineer®

- Free onsite Consulting & Quotes

3C 509B TPO OEM.....@55
3C 509B Combo.....@81
3C 900 PCI TPO OEM.....@73
3C 900 PCI Combo OEM .....@91
3C 905 TX PCI 10/100 TP .....@79
CNET 200E/200C Combo .....@33/@32

Tel: (408)954-8998

Fax: (408)954-1135 Mon - Fri: 9am - 6pm

542 West Trimble Road, San Jose, CA 95131
E-mail: chicotec@ix.netcom.com
www.chicotec.com

Logos and trademarks belong to their respective owners. Not responsible for typographical errors.

Note, however, that if the chips are not installed, or are implemented in nonstandard fashion, the program's readings and the alerts will be false. For example, the BIOS information indicates that the SOYO SY-6KB board has both chips, but some of Motherboard Monitor's voltage readings are way off, which suggests a nonstandard implementation of the chips.

The Ultrastar drive, because it gets hotter, has IBM's Drive-TIP (Temperature Indicator Processor), a self-monitoring processor which records system information on a reserved portion of the drive and can alert the host system of heat problems. The host must then alert the user. How this should work is part of the S.M.A.R.T specifications, currently being standardized but not yet integrated into systems and operating systems. Microsoft says NT 5 will provide some S.M.A.R.T support.

Cables And Termination

In my initial assembly article I suggested a solution for those needing internal wide (Ultrastar and Viking II), narrow (SyJet) and external (CD-ROM) SCSI drives. In this configuration, a single channel controller is in the middle of the SCSI chain and, therefore, cannot accept external drives. Since CD-ROMs are 5.25" drives, and thus do not fit in 3.5" removable enclosures, only external units can be switched between systems. The suggestion was to extend the narrow internal cable to the back of the case and connect the external drive to it, rather than to the external connector on the controller.

In practice, however, this proved impractical—the connector on the cable was such that I could not connect the extended cable to the controller. A better alternative is a dual channel SCSI controller—basically, two controllers in one. Internal drives are on one channel and external drives on another. Such controllers use two interrupts (IRQs), but conveniently permit both mixed internal and external drives. This also improves performance in multi-disk, I/O intensive environments.

Adaptec has a dual version of the AHA2940UW controller but, unfortunately, it is only available for OEMs (integrators who sell full systems). I urged Adaptec to make it available to end users. They said they'd consider the idea, and that if you want one, you should contact them and let them know. For now, however, you will either have to find an alternative (I will be looking at one from Diamond shortly), or find an OEM who offers it.

But if you use internal only, or wide internal and narrow external drive combinations, a single channel controller will do.

The Adaptec controller sets its own termination electronically, based on what it senses is connected to it, but some suggest a more reliable approach, hence the Granite active diagnostics terminator (Listing 1) for the controller (or last external drive).

Factory termination defaults for each drive may be either on or off, and may not always fit your specific drive configuration. That means finding the default in the manual (not always easy) and using jumpers to set it to your needs. This is an error-prone hassle, and a mistake can cause crashes and data loss. Moreover, if the drive configuration changes, you may need to reset the termination.

Kingston makes it easier, by conveniently allowing you to set termination on the enclosures themselves, thus relieving users of taking the drive out (normally, termination is activated by jumpering, but Kingston requires unjumpering, which makes it easy to err by force of habit). The Bay Cooler and Data Port require direct drive termination.

continued on page 177

Special Same-Day Service • System Specialist • Since 1990
5-Year Labor & 1-Year Parts Warranty on All Computers

MultiMedia Kit 24X EIDE CD-ROM Yamaha 16-Bit Sound Stereo Speakers	33.6/56K Fax/Modem w/Voice & Speaker Phone	17" SVGA Monitor Digital Control 16" Viewable Size	AMD/K6-233MMX Intel 200MMX w/TXM/B 512K L2 Cache	K6-266/300MHz TX PRO AGP 1MB Cache M/B & CPU	PENTIUM® II Intel PII 233MMX w/440LX 512K L2 Cache Motherboard
$89	$55/75	$319	$189	$229/279	$359

HIGH PERFORMANCE

- Intel 430 TRX-UDMA Support Motherboard
- 512K SDRAM L2 Cache
- Processor w/Master Ball Bearing Fan
- 32MB SDRAM 10ns
- 1.44 Floppy Drive
- 2.1GB Fast UDMA (33MB/S)
- MPEG Movie PCI 64-Bit Accelerated 3D Video w/2MB
- Panasonic 24X EIDE CD-ROM Drive
- Yamaha 16 Bit OPL3 Stereo Sound Card
- 33.6 Fax/Modem Zoltric w/Voice & Speakerphone
- Medium Tower Case
- Qtronic Win 95 Keyboard
- Microsoft Compatible Mouse & Pad
- 80 Watt Stereo Speakers

Pentium® 166MMX **$659**
Pentium® 200MMX **$709**
Pentium® 233MMX **$749**
AMD-233MMX **$699**
AMD-266/300MMX w/AGP PRO M/B & 1MB Cache **$769/819**
Monitor not Included

SUPER PERFOMANCE

- ATC-6120 MMX-PII Intel 440LX-ATX AGP UDMA (33MB/S)
- Intel Pentium® II Processor with Master CPU Cooling
- 32MB SDRAM 168 Pin (10ns) Memory
- 1.44MB Floppy Drive
- 4.3GB UDMA Fast (33MB/S)
- MPEG Movie PCI 64 Bit Accelerated 3D Video w/4MB
- 32X EIDE Toshiba CD-ROM Drive
- 32 Bit Ensonique PCI 3D Sound Card
- 56k Flex Fax/Modem Zoltrix w/Voice and Speakerphone
- ATX Deluxe Case w/Sliding Doors
- Keytronic Win 95 Enhanced
- Logitech PS/2 Mouse & Pad
- Subwoofer and Stereo Speakers w/350 Watts

Pentium® II 233MMX **$999**
Pentium® II 266MMX **$1059**
Pentium® II 300MMX **$1239**
Pentium® II 333MMX **$1389**
Pentium® II 400MMX w/BX M/B **$1699**
Monitor not Included

SPECIALS

ABIT PII LX6 Motherboard $129	**Iomega Zip 100MB IDE $95**
ADI Monitor SVGA .26 Microscan $359	**64MB - SDRAM $119**
Free Installation from any Hard Drive / Memory Purchased	**ViewSonic 17" G771 $439**

MOTHERBOARD w/CPU

Intel Triton 512K L2 PB SDRAM USB TX
Intel 166/200/233MHz MMX ..$189/$199/$239
AMD K6-233/266/300MHz .....$189/$229/$279
P.II-Intel 440LX-USB & CPU AGP
P.II-233/266/300/333 ..... $359/$389/$499/$629
P.II-333/400 .....Please Call
Abit Motherboard PII $129

MEMORY

16/32MB EDO.....$19/$44
32/64MB SDRAM.....$49/$109
128MB SDRAM..... $199

VIDEO CARDS

PCI 3D 64-Bit (MPEG) 2/4MB .....$37/$57
Diamond Stealth 2/4MB..... $59/$79
Stealth II 4MB SDRAM..... $97
ATI-In Wonderer 4MB $149
ATI-Expert Play 4/8MB .....$119/$159
ATI Rage II 4/8MB .....$69/$119
Matrox Millen.II AGP 4/8MB.....$169/$239
Viper-V330 4MB AGP $145
Diamond Stealth AGP 2/4MB-3D.....$59/$89

CPU- INTEL & AMD

Intel 166/200/233MMX .....$99/$129/$159
AMD K6-200/233/266MMX .....$119/$139/189
P.II- 233/266MMX .....$249/$289
P.II- 300/333MMX .....$399/$519
P.II- 400MMX .....Please Call

NETWORK CARDS

NE-2000 ISA $19
SN-3200 PCI 32Bit.....$22
3-Com PCI110/100BT.....$59
Direct Jet Ex. Printer HP.....$299
Hub & Switch Cables .....Please Call

HARD DRIVES

1.2/1.7GB UDMA .....$119/$135
2.1/2.6GB UDMA .....$139/$149
3.2/4.3GB UDMA .....$159/$179
5.2/6.4GB UDMA .....$199/$229
2.1/4.3GB UW-SCSI .....$225/$289
4.5/9.1GB UW-SCSI .....$539/$699

SCSI CONTROLLERS

SCSI-2PCI-2940.....$149
SCSI-UW-2940 .....$189
RAGE CONTROLLER .....Please Call

IOMEGA BACK-UPS

IOMEGA ZIP-100MB.....$85
JAZ 1GB $229
HPT 13000 3.2GB Int w/Cart $189
HPT 4000 8GB Int w/Cart $369
HPT 4354A 5GB Int w/Cart.....$229

MODEM & FAX

33.6/56K Flex ZOTRIC .....$55/$75
33.6/56K X2 USR .....$69/$109
ISDN Other.....Please Call

CD-ROM

24/32X EIDE.....$65/$79
24/32X SCSI CD ROM.....$109/$129
DVD CD MASTER.....$259
Recordable CD .....Please Call

MONITORS

14" SVGA .28NI $129
15" SVGA Digital .28NI.....$179
17" SVGA Digital .28/.26NI....$319/$339/$359

Prices subject to change without notice.
Not responsible for typographical errors

MULTIMEDIA KIT

3D YAMAHA 16 BIT&
60WATTS SPEAKER WITH:
24X CD-ROM $89
32X CD-ROM $109

TROUBLESHOOTING & UPGRADING LABOR CHARGE FOR:

System Diagnostics
Checkup/Cleanup..... $20
Multimedia Kit Installations.....$20
Fax & Modem Installation.....$20
Motherboard Installation $30
Video Card/Hard Drive Installation $20
Hard Drive Transfer.....$45
Software Installation & Setup.....$25/Hr
On-Site Service Charge.....$60/Hr
Network On-Site Service Charge.....$100/Hr

SAME-DAY SERVICE
WE REPAIR:
All Computer & Laser Printers

Complete Networking Service

ComTek Computer
Since 1990

DUBLIN
6602 Dublin Blvd., Dublin, CA 94568
(510) 803-1530
Fax: (510) 803-1531

E-mail:
ccomp6602@aol.com

HOURS: M-F 10-6, Sat 10-4

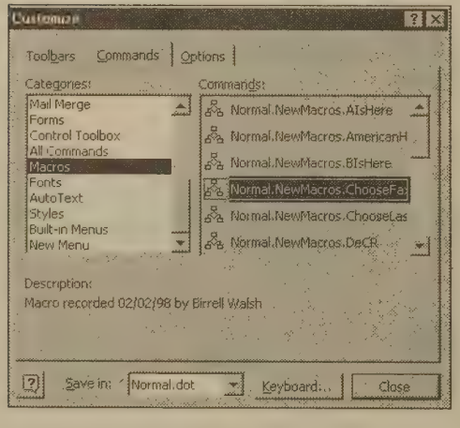
SANTA CLARA
5029 Stevens Creek Blvd., Santa Clara, CA 95051
(408) 249-4297
Fax: (408) 249-2370

Treasure In The Caves Of Word

Finding Useful Things Buried In Menus

By Birrell Walsh

Macros let you automate things you do all the time. The macro recorder allows you to record any sequence of keystrokes and menu choices. You can then rerun them all later by just playing back the macro.



Recently I was watching my wife format a table for her program when she turned the print 90 degrees. "I didn't know you could do that in Word," I said.

This set me to wondering about all the possibilities we have in Word 97 that we may not yet have discovered. What chests of gold are hidden there?

I have used the program for years without exploring its possibilities. I basically have been using Word as a text processor, with an occasional dollop of formatting. I always knew that there was more to learn, features that might save me time or make new things possible. I told myself that someday I would explore the caves. I just never had the time.

So that is the question this month: What lurks at the bottom of the Word menus? Expert users will know about all of these features, of course—but many are new to most of us as we go spelunking.

Useful Books

I called some of the publishers of computer books and asked them what they had on Word for Windows. First to respond was Peachpit Press with their *Visual Quickstart Guide For Word For Windows*. It was from that document that I discovered some of the simpler timesavers I've been neglecting all these years.

Then a bundle arrived from Microsoft Press. My favorite among their offerings was *Microsoft Word 97 At A Glance* by Jerry Joyce and Marianne Moon. This is just the sort of book that should be included with Word when you buy it—a highly visual, well-indexed guide to features. They also sent along *Quick Course In Microsoft Word 97* and *Step By Step Microsoft Word 97*. The latter two are course books that take you through graduated lessons. *Step By Step*, it says, "provides complete preparation for the Certified Microsoft Office User Proficient exam."

Macros

It would be worthwhile to have your copy of Word 97 open while reading this column, as this month we are strictly hands-on.

The first and most useful thing to learn is the macro recorder. It allows you to record any sequence of keystrokes and menu choices. You can then rerun them all later by just playing back the macro. Macros let you automate things you do all the time. One of my first macros typed just my name and address, but they can do a lot more.

I often go back and forth between my fax program (currently Procomm Plus 32) and my sturdy little HP LaserJet 6L. Word thinks of the fax program as another printer, so I am forever opening up the File menu, going to print, changing to the fax program or the desktop printer, and then closing up again. This is the ideal sort of problem to solve with macros.

The macro recorder lives in a side cave of the Tools menu. That is, you click on Tools on the main menu. When the dropdown menu presents itself, choose "Macro." Another menu will pop out to the side, and on it is "Record New Macro." The macro recorder will ask you what you want to call your macro. You can choose any name without spaces (or some other special characters) in it, so it is wise to use a very descriptive name. I will call my printer-switching macros "ChooseFaxForPrinting" and "ChooseLaserJet ForPrinting."

Once you have chosen a macro name and hit return, a small icon that looks like the buttons on a cassette recorder appears on the screen. That means you are recording, so you can begin doing the things you want to be part of the macro. For this printer-selection macro you then go to the file menu, choose print, change the printer to the fax program, and then "close." That's all there is to the macro, so you hit the stop button on the recorder. The recorder buttons disappear, and the macro is finished. (You will be asked if you want to "save changes to the global template" when you quit Word—that is an oblique way of asking if you want to keep your macro. Say yes.)

Now you can record a second macro to change printers to the LaserJet.

continued on page 98

DOMINOCOMP
Industrial Services

www.dominocomp.com
M-F 9am-6pm
Sat. 10am-6pm

Our warehouses in CA, IL, PA, TX and NY can delivery your orders at local cost which saves you money. If you order before 2pm PDT, you will be able to receive the ordered product by the next day.

We also provide access to our products through the web at www.dominocomp.com. Through this site, you can get quotes and access to our inventories instantly. If you feel there are higher prices on the Web, give us a call and we'll beat the price.

Search our Web-Site for a wealth of products and information. Find Products instantly... from "A" to "Z" and it's as easy as "http"

DOMINOCOMP QUALITY SYSTEMS

Systems Include:
32MB EDO
(P2)LX 512K PCI Mother Board
*(P5)TX
ATI 2MB 3D 64-Bit PCI SVGA Card
2.5GB Fujitsu UDMA
32X CD-ROM
16 bit Audio
56.6 Flex Modem
1.44 FDD, Speakers, Med Tower Case ATX(P2), Mini Tower Case AT(P5), 104 key Keyboard & MS Mouse, MS Windows 95, and ***One Month free Internet Access.***

Systems:
Intel P5200mmx.....$679
Intel P5233mmx.....$709
AMDK6200mmx.....$649
AMDK6233mmx.....$659
AMDK6266mmx.....$759
AMDK6300mmx.....$859
Cyrix M2-P200C.....$629
Intel P2 233 512k.....$799
Intel P2 266 512k.....$859
Intel P2 300 512k.....$989
Intel P2 333 512k.....$1100
Intel P2 400 512k.....$1459

Systems Upgrades:
5.2GB.....add $60
11,5GB.....add $260
64mb RAM.....add $48
128mb RAM.....add $298
AWE 64.....add $50
USR 56k X2.....add $41
Refurb 28.8 Ext...add $19.99
17" .28 Mont.....add $299
15" .28 Mont.....add $189

On Sale

A PERFECT OFFICE MACHINE

THIS MONTH

INTEL P5 233MMX W/FAN
ASUS512K PL W/UEIDE, 1P, 2S
WITH SUPER-TX CHIPSET UP TO 4MBSVGA ONBOARD
32MBEDOS 60NS 72 (BRAND NAME)
3.2GB HDD 10MS
1.44 Fdd
17" .28 1280X1024
MINI TOWER
104KYB W95
MS COMP. MOUSE
16BIT SOUND W/3D
60W SPEAKERS W/3D
32X CD-ROM
10/100 PCI CARD
PRELOAD: WIN95B USB READY W/ DISK (OEM)
3YR STAND WRTY, 1YR ON-SITE 24 - 7

$989.00

For other service plans or more informationa about the service plan listed here, visit our web site at: WWW.DOMINOCOMP.COM

THIS MONTH

COMPAQ

PROSIGNIA / PROLIANT SERVERS

PROSIGNIA 200 P2-233 NO-HD 32MB 512K 16X MODEL 1 IDE **(292970-001)**.....**$1355.07**
PROLIANT 800 6/200 MODEL 1 32MB EDO ECC DIMMS,256KB **(273720-001)**.....**$1421.09**
PROLIANT 2500 PPRO-200 MODEL H NO-HD 32MB ECC **(250960-001)**.....**$2863.08**
PROLIANT STORAGE SYSTEM TOWER MODEL F1 (OOP Q2 98) **(272900-001)**.....**$1097.03**
PROLIANT STORAGE SYSTEM TOWER MODEL F2 (OOP Q2 98) **(272900-002)**.....**$1415.44**
PROLIANT STORAGE SYSTEM RACK MODEL F1 (OOP Q298) **(272800-001)**.....**$1413.27**
12X/7DR TOWER SCSI COMPAQ CD STORAGE SYSTEM **(306251-B21)**.....**$2608.93**
12X/7DR 4U RACK SCSI COMPAQ CD STORAGE SYSTEM **(306250-B21)**.....**$3204.39**
PROLIANT 2500 PPRO-200 MODEL H NO-HD 32MB ECC SMART 2/P ARRAY **(250960-003)**.....**$4980.60**

ARMADA NOTEBOOK SYSTEMS

1560DM PENT-166 MMX 16MB 3.1GB 12.1 DSCAN 20X 56K W **(305300-002)**.....**$1875.09**
1590DMT PENT-166 MMX 12.1TFT 2.1GB 16MB 20X 33.6 **(291450-007)**.....**$2561.89**
4220T PENT-266 MMX 4GB 32MB 12.1TFT 512CACHE 2LIIO **(290950-002)**.....**$3287.94**
7710MT PENT-150 MMX 1.6GB 16MB 12.1 TFT 33.6 W95/NT **(220702-002)**.....**$1499.93**

COMPAQ NETWORKING

COMPAQ MICROCOM 808 INTEGRATED ACCESS DEVICE **(312450-001)**.....**$803.83**
5708 NETELLIGENT ENET 8-PORT DUAL SPEED SWITCH **(167050-001)**.....**$1287.09**
5226 NETELLIGENT ENET 24 PORT SWITCH **(288900-001)**.....**$1514.32**
5208 ANALOG REMOTE ACCESS SERVER **(192968-001)**.....**$5214.09**

PROFESSIONAL WORKSTATION

CPW5100 6266 P2 1P/32MB/2GB/2D MILLENIUM 2 24X CD ROM **(299300-002)**.....**$2604.74**
CPW5100 P2-333 4GB-HD 1/P 64MB P2D **(179800-002)**.....**$3423.05**

Call Now
Sale Ends June 30th

HEWLETT PACKARD

Printers

HP Laser Jet 5.....**$999**
HP Laser Jet 5Si.....**$2349**
HP Laserjet 6LXi.....**$377**
HP Laser let 6PXi.....**$745**
HP Laser Jet 4000 **(C4118A)**.....**$1099**
HP Laser Jet 4000N **(C4120A)**.....**$1415**
HP Laser jet 4000T3 trays **(C4119A)** **$1249**
HP Laser Jet 400OTN jetdirect **(C4121A)**...**$1575**

Net Servers

E45/MT PII-233,32mb,512k,4.2gb scsi, 24X, 10/100 NI **(D4974A)**.....**$1839**
E45/MT PII-266,32mb,512k,4.2gb scsi, 24X, 10/100 NI **(D4976A)**.....**$2179**
E45/MT PII-300,64mb,512k,4.2gb scsiuw,24X, 10/100 NI **(D6033A)**.....**$2199**

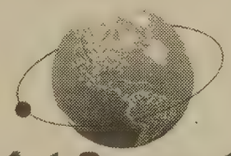
IBM

Workstations

IntelliStation PII-233, 32MB, 4.2GB, 24X CD, 1O/1OOBT, Win NT**(MPro2D-I0U)**.....**$2839**
IntelliStation PII-266, 64MB, 6.4GB, 24X CD, 1O/1OOBT, Win NT**(MPro3D-12U)**.....**$3799**
PII 266, 32MB, 4.2GB, 32X, Desktop, Win95 **(PC300GL)**.....**$1479**
PII 333, 64MB, 4.2GB, 32X Tower, Win NT **(PC300GL)**.....**$2079**
P-233MMX, 32MB, 4.3GB, 24XCD, Win NT **(PC300PL-5OU)**.....**$2035**
PII-233, 32MB, 2.1GB, 12XCD, IOBT, Win NT **(PC300XL-1OU)**.....**$2065**
PII-266, 32MB, 4.2GB, 16X CD, IOBT, Win NT **(PC300XL-51U)**.....**$2355**
PII-M, 32MB, 4.2GB, 16X CD, Win NT **(PC300XL-53U)**.....**$2675**

INTERNET SERVICES

Explore New Worlds With DominoComp's 1st Connect Internet Services



1st Connect

X2 56K PPP Internet Specials

- **PPP Dial Up Account With E-Mail, Unlimited Access and no setup fee for just *$18.88 a Month***
- **Small Businesses Packagaes: 1 PPP, 30mb, 10 e-mail only $35 setup fee for just *$24.99 a month***
- **56k - T1 Frame Relay, T1 - T3 Dedicated Line Leasing: *(Call for more info)***
- **Domain & web-site Hosting, e-mail and news: *(Call for more Info)***
- **Web Design & Web Develpment Packages! Complete packages starting at *Just $125.***
- **Sign up for a year and pay only $159.00 *(Thats $13.25 a month)***

Electronic Commerce Site Development

- **Credit Card Authentication & Secure Server (https)**
- **ASP, Java & Java Script, CGI & Front Page Extentions**
- **Support Unix and Windows NT**
- **Server Collocation**
- **24hr Monitoring**
- **Full System Backup**

Covering
(408), (510), (415), (650) ...and more, Call for more info.

! Unlimited 56k Usage !
! Busy Signal Free !
! Three account Special !
Sign up two freinds and recieve a discount
Call for more information

For more information, please visit our Web Site at www.1connect.com

3Com® Bay Networks Cisco Systems ASCEND

San Jose Office: Voice: 1800-999-6569 Voice: 408-574-4977 Fax: 408-363-1803
Milpitas Office: Voice: 408-946-6991 Fax: 408-946-0312

All prices and availability are subject to change with out notice. DominoComp is not responcible for Typographical Errors. All logos are registered trademarks of their Companies

THE BEST VALUE IN THE BAY AREA

- *One Year Parts and Labor Warranty*
- *Systems Burned-In and Tested For 72 Hours*
- *Custom System Configurations Available*
- *Financing Available*
- *Knowledgable Sales and Technical Staff*
- *Fast Turn-Around On Service*

Updated product pricing available at our WWW site **http://www.pixelusa.com**

Now Open at New Location

We have moved to a new 4800 square foot facility that will feature better access and parking!!
One Block West of Highway 280.

STORE HOURS:
Mon.-Fri. 9:30 AM to 7:00 PM
Saturday 10:00 AM to 6:00 PM

intel Pentium MMX 200MHz — Best Value — $ 648

- Motherboard AT (Socket 7)
- Intel Triton 430TX Chipset
- 512Kb Cache (Pipelined Burst Sram)
- Intel CPU MMX P5-200MHz
- CPU Cooling kit w/ Heatsink & Fan (Ball Bearing)
- 32Mb Ram EDO 60ns Installed (72-pin)
- Ultra ATA Controller 4HD & 2FD w/ 2s(16550), 1P(EPP)
- Floppy Drive 1.44Mb
- Hard Disk 3.2Gb Ultra ATA (33Mb/s)
- Windows Accelerator PCI 2Mb
- 14" Super VGA Color Monitor (1024 x 768) .28 NI
- Mitsumi 104 Keys Enhanced Keyboard
- Mini Tower Case 230 Watt Power Supply
- Logitech 3 Buttons Mouse
- 24X CD-Rom Drive
- 16-bit Sound Card (ESS)
- Pair of Amplified Speakers 80 Watts
- Windows 95 CD-ROM *Pre-Loaded* Full Version (CD & Manuals)

Intel Pentium MMX 233 MHz $678
AMD K6 MMX 233 MHz $618
AMD K6 MMX 266 MHz $648

intel Pentium MMX 200MHz — Best Buy — $ 818

- Motherboard ATX (Socket 7)
- Intel Triton 430TX Chipset
- 512Kb Cache (Pipelined Burst Sram)
- Intel CPU MMX P5-200MHz
- CPU Cooling kit w/ Heatsink & Fan (Ball Bearing)
- 32Mb SDRam 10ns Installed (168-pin)
- Ultra ATA Controller 4HD & 2FD w/ 2s (16550), 1P (EPP)
- Floppy Drive 1.44Mb
- Hard Disk 4.3Gb Ultra ATA (33MB/s)
- Cirrus Logic 5464 PCI w/ 4Mb
- 15" CTX VL500 Digital Color Monitor (1280 x 1024) .28 NI
- Mitsumi 104 Keys PS-2 Enhanced Keyboard
- ATX Medium Tower Case 235 Watt Power Supply
- Microsoft IntelliMouse PS-2 Mouse
- 32X CD-Rom Drive
- Creative Labs: PCI Ensoniq Audio
- Pair of Speakers 200 watts
- Windows 95 CD-ROM *Pre-Loaded* Full Version (CD & Manuals)

Intel Pentium MMX 233 MHz $858
AMD K6 MMX 233 MHz $798
AMD K6 MMX 266 MHz $828

intel Pentium II 233MHz — Super Value — $ 858

- Motherboard Pentium II (Slot 1)
- Intel 440LX Chipset
- 512Kb Cache on Processor
- Intel Pentium II 233MHz
- CPU Cooling kit w Heatsink & Fan (Ball Bearing)
- 32Mb SDRAM 10ns Installed (168-pin)
- Ultra ATA Controller 4HD & 2FD w 2s (16550), 1P (EPP)
- Floppy Drive 1.44Mb
- Hard Disk 4.3Gb Ultra ATA (33MB/s)
- Windows Accelerator AGP 4Mb
- 15" Sampo 511L Digital Color Monitor (1024 x 768) .28 NI
- Mitsumi 104 Keys Enhanced Keyboard
- ATX Medium Tower Case 235 Watt Power Supply
- Logitech 3 Buttons PS-2 Mouse
- 32X CD-Rom Drive
- 16-bit Sound Card (ESS)
- Pair of Speakers 200 Watts
- Windows 95 CD-ROM *Pre-Loaded* Full Version (CD & Manuals)

266 MHz Pentium II $918
300 MHz Pentium II $1,058
333 MHz Pentium II $1,178

intel Pentium II 233MHz — Atlanta — $ 1,238

- Intel Atlanta Motherboard (Slot 1)
- Intel 440LX Chipset
- 512Kb Cache on Processor
- Intel CPU Pentium II 233MHz
- CPU Cooling kit w/ Heatsink & Fan (Ball Bearing)
- 32Mb SDRAM 10ns Installed (168-pin)
- Ultra ATA Controller 4HD & 2FD w/ 2s (16550), 1P (EPP)
- Floppy Drive 1.44Mb
- Hard Disk 6.4Gb Ultra ATA (33MB/s)
- Matrox Productiva G100 AGP 8MB
- 17" CTX VL-710 Digital Color Monitor (1600 x 1200) .26 NI
- Keytronic 104 Keys PS-2 Enhanced Keyboard
- ATX Medium Tower Case 235 Watt Power Supply
- Microsoft IntelliMouse Mouse PS-2
- 32X CD-Rom Drive
- Yamaha OPL Sound (On-Board)
- Pair of Speakers (Yamaha YST-M7)
- Windows 95 CD-ROM *Pre-Loaded* Full Version (CD & Manuals)

266 MHz Pentium II $1,298
300 MHz Pentium II $1,438
333 MHz Pentium II $1,558

intel Pentium II 350MHz — Asus P2B — $1,798

- Asus P2B Motherboard (Slot 1)
- Intel 440BX Chipset
- 512Kb Cache on Processor
- Intel CPU Pentium II 350MHz
- CPU Cooling kit w/ Heatsink & Fan (Ball Bearing)
- 64Mb SDRAM PC100 Installed (168-pin)
- Ultra ATA Controller 4HD & 2FD w/ 2s (16550), 1P (EPP)
- Floppy Drive 1.44Mb
- Hard Disk 6.4Gb Ultra ATA (33MB/s)
- Diamond Stealth G460 AGP 8MB
- 17" CTX VL-710 Digital Color Monitor (1600 x 1200) .26 NI
- Keytronic 104 Keys PS-2 Enhanced Keyboard
- ATX Medium Tower Case 235 Watt Power Supply
- Logitech First Mouse Plus PS-2
- 32X CD-Rom Drive
- Creative Labs: PCI Ensoniq Audio
- Yamaha System 25 w/ Subwoofer
- Windows 95 CD-ROM *Pre-Loaded* Full Version (CD & Manuals)

400 MHz Pentium II $2,048

intel Pentium II 350MHz — Seattle — $ 1,998

- Intel Seattle Motherboard (Slot 1)
- Intel 440BX Chipset
- 512Kb Cache on Processor
- Intel CPU Pentium II 350MHz
- CPU Cooling kit w Heatsink & Fan (Ball Bearing)
- 64Mb SDRAM PC100 Installed (168-pin)
- Ultra ATA Controller 4HD & 2FD w/ 2s (16550), 1P (EPP)
- Floppy Drive 1.44Mb
- Hard Disk 6.4Gb Ultra ATA (33MB/s)
- Diamond Stealth G460 AGP 8MB
- 17" Iiyama MT-9017E Digital Color Monitor (1600 x 1200) .25 NI
- Keytronic 104 Keys PS-2 Enhanced Keyboard
- ATX Medium Tower Case 235 Watt Power Supply
- Microsoft IntelliMouse Mouse PS-2
- 32X CD-Rom Drive
- PCI Audio on-board
- Yamaha System 25 w/ Subwoofer
- Windows 95 CD-ROM *Pre-Loaded* Full Version (CD & Manuals)

400 MHz Pentium II $2,258

USA Pixel

VISA

Pixel USA
(408) 293-8333
810 South Bascom, San Jose, CA 95128
Fax: (408) 293-8353

MasterCard

Prices subject to daily fluctuation. Please call for lastest price. Not responsible for typos.

See our product catalog with manufacturer links at our web site
http://www.pixelusa.com
(we sell web servers too)

MOTHERBOARDS W/O CPU

AIBIT

TX5	$83
AX5	$83
AH6	$93
IX6	$108
BX6	$163
Other	$ Call

ASUS

SP97-V	$83
TXP4	$108
TXP4-X	$118
TX97-LE	$118
TX97-X	$123
P2L97	$138
P2L97-S ******* w/ Adaptec ********	$218
P2L97-DS Dual PII w/ Adaptec	$338
P2B	$178
P2B-S	$298
P2B-DS Coming Soon	$298
Other	$ Call

FIC

VT-503	$78
VA-503+	$98
PA 2012	$98
PA-2013 Coming Soon	$ Call
VL-601	$108
VB 601	$138
Other	$ Call

intel

Atlanta w/o Audio (Box)	$158
Atlanta w/ Audio (Box)	$168
SE440BX w/ ISA Audio	$178
SE440BX w/ PCI Audio	$198
DK440LX (Box)	$448
N440BX (Box)	$588
Other	$ Call

TYAN

S1571 Titan Turbo AT 2	$93
S1573 Titan Turbo ATX-2	$93
S1692S Tiger 2 ATX Single	$133
S1846S Tsunami ATX	$183
S1832DL Tiger 100	$283
S1696DLUA Thunder 2 ATX	$363
S1832DLUAN Thunder 100	$573
Other	$ Call

PROCESSORS

AMD K6-233 ---> 300MHz (Box)	$ Call
AMD K6-II-266 ---> 300MHz (Box)	$ Call
Intel P5 MMX 166 ---> 233Mhz (OEM)	$ Call
Intel Pentium II 233 ---> 400MHz (Box)	$ Call

MEMORY

16Mb ---> 32Mb EDO 60ns (72 pin)	$ Call
32Mb SDRAM 10ns (168-pin)	$ Call
64Mb SDRAM 10ns (168-pin)	$ Call
128Mb SDRAM 10ns (168-pin)	$ Call
32Mb SDRAM 100Mhz (168-pin)	$ Call
64Mb SDRAM 100Mhz (168-pin)	$ Call
128Mb SDRAM 100MHz (168-pin)	$ Call

VIDEO CARDS

Jaton Video-57P PCI 1MB (Trident 9680)	$18
Jaton Video-57P PCI 2MB (Trident 9680)	$25
Jaton Video-58P PCI 2Mb (ET-6000)	$43
Jaton Video-70P PCI 4Mb (CL-GD5464)	$33
Jaton Video 61-3D PCI 4Mb (S3 Virge)	$38
Jaton Video 87AGP 3D AGP 4MB	$38
Jaton Video 87AGP 3D&TV AGP 4MB	$43
aton Video-97AGP 3D AGP 4MB	$43
Jaton Video-97AGP 3D&TV AGP 4MB	$48
Cirrus Logic 5464 PCI 4Mb	$28
Creative Labs: 3D Blaster PCI 4Mb (Box)	$98
Creative Labs: Exxtreme Value PCI 4Mb (Box)	$108
Creative Labs: Exxtreme Prof. PCI 8Mb (Box)	$168
C. Labs: 3D Blaster Voodoo PCI 8Mb (Box)	$208
C. Labs: 3D Blaster Voodoo PCI 12Mb (Box)	$268
Other	$ Call

DIAMOND Computer Systems, Inc

Stealth 64 3D 3000 PCI 2Mb VRAM	$58
Stealth II S220 PCI 4Mb	$78
Stealth 3D 4000 AGP 4Mb	$48
Stealth II G460 AGP 8Mb	$93
Viper 330 PCI 4Mb	$83
Viper 330 AGP 4Mb	$83
Fire GL 1000 Pro PCI 8Mb	$158
Fire GL 1000 Pro AGP 8Mb	$168
Monster 3DII PCI 8MB	$198
Other	$ Call

Retail Box Versions

Stealth 2000 Pro PCI 4Mb w/ TV	$63
Stealth II S220 PCI 4Mb	$88
Stealth II G460 AGP 8Mb	$ Call
Viper 330 PCI 4Mb	$98
Monster 3DII PCI 8MB	$228
Monster 3DII PCI 12MB	$268
Fire GL 1000 PCI 4Mb	$98
Other	$ Call

ATI TECHNOLOGIES INC. Perfecting the PC

Xpert 98 PCI 8Mb (Box)	$83
Xpert 98 PCI 8Mb (Box)	$88
Xpert Play 98 PCI 8Mb (Box)	$123
Xpert Play 98 AGP 8Mb (Box)	$128
3D Pro Turbo PC2TV PCI 4Mb (Box)	$68
All in Wonder Pro PCI 4Mb (Box)	$233
All in Wonder Pro AGP 8Mb (OEM)	$258
All in Wonder Pro AGP 8Mb (Box)	$298
All in Wonder Pro PCI 8Mb (OEM)	$248
Other	$ Call

matrox

M3D Game Upgrade (Box)	$78
MGA Mystique 220 PCI 4Mb (OEM)	$68
MGA Mystique 220 PCI 4Mb (Box)	$78
MGA Productiva G100 AGP 8Mb (OEM)	$73
MGA Productiva G100 AGP 8Mb (Box)	$83
MGA Millenium II PCI 4Mb (OEM)	$108
MGA Millenium II AGP 4Mb (OEM)	$108
MGA Millenium II PCI 8Mb (OEM)	$158
MGA Millenium II G200 AGP 8Mb (OEM)	$128
MGA Millenium II G200 AGP 8Mb (Box)	$148
Rainbow Runner for Mystique	$158
Rainbow Runner for Millenium II	$208
Other	$ Call

MONITORS

Sampo 14" SVGA Color Monitor .28 NI	$128
Sampo 15" SVGA Color Monitor .28 NI	$158
Sampo 17" SVGA Color Monitor .28 NI	$278
CTX 15" VL500	$198
CTX 17" VL710	$358
CTX 17" 1785XA	$388
CTX 17" PR710	$538
CTX 19" VL950	$558

iiyama

17" VisionMaster 17 (MT-8617E)	$448
17" VisionMaster Pro 17 (MT-9017E)	$548
19" VisionMaster 450 (S-901GT)	$748
21" VisionMaster 21 (MF-8221E)	$1,098
21" VisionMaster Pro 21 (MT-9021E)	$ Call

HITACHI

15" SuperScan Pro 500	$228
17" SuperScan Elite 630	$458
19" SuperScan Elite CM751	$778
21" SuperScan Pro CM800	$1,028
Other	$ Call

NEC

15" A500	$228
15" E500	$278
17" A700	$398
17" E700	$508
17" P750	$758
19" E900	$838
21" E1100	$1,048
21" P1150	$1,198
Other	$ Call

SONY.

15" 100ES	$278
15" 100GS	$348
17" 200ES	$478
17" 200GS	$598
19" 400PS	$928
21" 500PS	$1,298
Other	$ Call

ViewSonic

17" GS771	$388
17" P775	$478
19" G790	$708
19" PS790	$818
20" G810	$958
21" P815	$1,228
Other	$ Call

INTERFACE CARDS

Kowell - Single Parallel ISA Card	$13
Kowell - Single Parallel PCI Bus	$48
Kowell - Dual Parallel ISA Card	$33
Kowell - AT i/o 2S (16,550) 1P (FPP & ECP)	$23
EIDE ISA w/ Bios 4HD & 2FD 2s (16,550), 1p, 1g	$28
Diamond Fireport 40 UW PCI SCSI	$83
Adaptec 2940U Ultra SCSI PCI (OEM)	$148
Adaptec 2940UW UW SCSI PCI (OEM)	$178
Adaptec 2940U2W U2W SCSI PCI (Box)	$ Call
Adaptec AAA-131 Array Solutions (Box)	$398
Adaptec AAA-133 Array Solutions (Box)	$558
Other	$ Call

HARD DISKS

IBM

IDE 6.4GB Ultra ATA 9.5ms, 33MB/s	$218
IDE 8.4GB Ultra ATA 10ms, 33MB/s	$283
SCSI 4.3GB UW 8.5ms, 40MB/s	$268
SCSI 9ES 4.5GB Ultra Wide 7.5ms, 40MB/s	$338
SCSI 9ES 9.1GB Ultra Wide 7.5ms, 40MB/s	$658
Other	$ Call

FUJITSU

IDE 3.2GB Ultra ATA 10ms, 33MB/s	$133
IDE 4.3GB Ultra ATA 10ms, 33MB/s	$153
IDE 5.2GB Ultra ATA 10ms, 33MB/s	$183
IDE 6.4GB Ultra ATA 9.5ms, 33Mb/s	$198
Other	$ Call

Quantum

FireBall SE IDE 4.3GB Ultra ATA, 33MB/s	$168
FireBall SE IDE 6.4GB Ultra ATA, 33MB/s	$208
FireBall SE IDE 8.4GB Ultra ATA, 33MB/s	$298
Other	$ Call

WESTERN DIGITAL

IDE 4.3Gb Ultra ATA (WD-34300)	$163
IDE 5.0Gb Ultra ATA (WD-35000)	$193
IDE 6.4Gb Ultra ATA (WD-36400)	$213
Other	$Call

Seagate

4.5GB Ultra Wide SCSI (ST 34572W)	$ Call
9.1GB Ultra Wide SCSI (ST 19171W)	$ Call
4.5GB Ultra Wide SCSI (ST 34501W)	$ Call
9.1GB Ultra Wide SCSI (ST 19101W)	$ Call
Other	$ Call

FLOPPY DRIVES

1.44Mb (Mitsumi)	$16
1.44Mb (TEAC) White	$18

CD-ROM & CD-R DRIVE

CD IDE Toshiba 24X	$58
CD IDE Samsung 32X	$58
CD IDE Teac 32X	$68
CD IDE Toshiba 32X	$68
CD IDE Sony 32X	$68
CD SCSI Teac 32X	$98
CD SCSI Toshiba 32X	$98
CDR HP 7200i IDE (6R, 2W)	$388
CDR Sony IDE (8R, 2W)	$298
CDR Sony SCSI (6R, 2W)	$338
CDR Sony SCSI (8R, 4W)	$408
CDR Yamaha SCSI (6R, 4W) Internal	$468
CDR Yamaha SCSI (6R, 4W, 2RW) Internal	$558
CDR Yamaha SCSI (6R, 4W, 2RW) External	$638

CASE & POWER SUPPLY

Mini tower Case + 230 W.P.S	$18
Desktop AT Case + 230 W.P.S	$25
Super Mini tower Case + 230 W.P.S	$28
Medium tower Case + 230 W.P.S	$38
Full tower Case + 250 W.P.S	$58
Acer, Asus	$ Call
Irwin	$ Call
Gigastar	$ Call

MODEMS

DIAMOND

Supra Max PCI 56Klex V.90 Internal (OEM)	$55
Supra Max ISA 56Klex V.90 Internal (Box)	$68
Supra Express 56Klex V.90 Internal (Box)	$98
Supra Express 56Klex V.90 External (Box)	$118
Other	$ Call

US Robotics

Sporter 5687 56K V.90 Internal (OEM)	$118
Sporter 5687 56K V.90 Internal (Box)	$133
Sporter 5685 56K V.90 w/ Voice Internal (OEM)	$138
Sporter 5685 56K V.90 w/ Voice Internal (Box)	$153
Sporter 5686 56K V.90 External (Box)	$153
Sporter 5605 56K V.90 w/ Voice External (Box)	$228
Sporter ISDN 128K Internal (Box)	$183
Other	$ Call

MICE

OEM Logitech Products sold with system only

Logitech First Mouse Serial (OEM)	$8
Logitech First Mouse PS-2 (OEM)	$8
Logitech MouseMan Serial (OEM)	$15
Logitech MouseMan Combo (OEM)	$18
Logitech First Mouse + (OEM)	$15
Logitech TrackMan Marble (OEM)	$38
Logitech Cordless MouseMan Pro (OEM)	$38
Logitech MouseMan 96 (Box)	$35
Logitech MouseMan Notebook (Box)	$35
Logitech MouseMan + (Box)	$43
Logitech Cordless MouseMan Pro (Box)	$58
Logitech TrackMan Marble (Box)	$53
Other	$ Call

Microsoft Products sold with system only

Microsoft Natural Keyboard	$38
Microsoft Serial Mouse (Ergonomic)	$18
Microsoft IntelliMouse Serial (Ergonomic)	$23
Microsoft IntelliMouse PS-2 (Ergonomic)	$23
Windows 95 OSR2	$88
Other OEM Products	$ Call

ACCESSORIES

Sound Blaster 16 Compatible ESS	$13
Sound Blaster 16 Compatible ESS w/ Wavetable	$15
Diamond Sonic Impact (OEM)	$38
Jaton 33.6 Internal Modem, Fax & Voice	$38
Jaton 56K x2 Internal Modem, Fax, Voice	$58
Jaton 56Klex V.90 Internal Modem, Fax, Voice	$63
FIC 56Klex V.90 PCI Modem, Fax, Voice	$53

CREATIVE CREATIVE LABS, INC.

Sound Blaster 16 (OEM)	$33
Sound Blaster Ensoniq PCI (OEM)	$38
Sound Blaster AWE64 Value (OEM)	$63
Sound Blaster AWE64 Value (Box)	$88
Sound Blaster PCI 64 (Box)	$93
Sound Blaster Gold AWE64 (Box)	$138
3D Blaster PCI 4Mb (Box)	$78
Exxtreme Value Edition PCI 4Mb (Box)	$78
Exxtreme Professional Edition PCI 8Mb (Box)	$168
3D Blaster Voodoo II PCI 8Mb (Box)	$208
3D Blaster Voodoo II PCI 12Mb (Box)	$268
PC-DVD Blaster DVD Drive (Box)	$143
Performance AWE 64 DVD (Box)	$208
Encore-2 Dxr2 (Box)	$273
Other	$ Call

USA Pixel

VISA

Pixel USA

(408) 293-8333

810 South Bascom, San Jose, CA 95128

Fax: (408) 293-8353

MasterCard

Prices subject to daily fluctuation. Please call for lastest price. Not responsible for typos.

See our product catalog with manufacturer links at our web site

http://www.pixelusa.com

(we sell web servers too)

continued from page 94

Button It, Then Menu It

Now we have two useful macros. How do we get them where we can use them?

Another side-menu to the Tools menu is "Customize." It is a bit complex, but so useful that it's worth the effort.

There are three tabs in "Customize." One shows and hides toolbars. Some of those toolbars are provided by Word—the drawing toolbar and such. But there are some "custom" toolbars as well, toolbars you can fill with your own commands. If you check the box beside one of the custom toolbars, an empty toolbar will appear from nowhere. You can drag it to the top of your screen and place it with the toolbars that are already there.

A second tab in "Customize" is "Commands." This gives you access to most of Word's commands—and to your macros. If you choose "Macros" in the "Categories" window, you will see all of your macros. Among them will be the newly made "ChooseFaxForPrinting" and "ChooseLaserJetForPrinting."

Now comes the fun part. Drag these two macros to the toolbar you have just created and drop them. As soon as you close "Customize" they will be functioning buttons.

But first you may want to rename them. They tend to have ghastly long names like "Normal.NewMacros.ChooseFaxForPrinting." That is Word's internal way of thinking of your macro, but you can change the name on the button. While "Customize" is still open, right-click on the name on the button. A menu of options will drop down, and one of them is "Name." Edit the name until you like it. I use "Fax for printing" and "LaserJet for printing." Voila! You have now created a custom toolbar!

You can also create a new menu. Menus are nice because they do not clutter up your toolbar area. Here's how you make one.

Go to "Tools" then choose "Customize," then select the tab "Commands." At the very bottom of the Categories window is "New Menu." If you choose "New Menu" in Categories, "New Menu" will also appear in the Commands window to the right of the Categories window. Drag this "New Menu" up on the menu bar—not the toolbar—and release it. Now there is a menu item called "New Menu." You can rename it as you would a button: Right click on it while "Customize" is open, and change the name. I use the title "My Macros."

Of course, an empty new menu is not much use to you. You can add items to this menu the same way you add items to a tool bar. Open "Commands" while in "Customize," select "Macros," and choose the macro you want on your menu. Then drag it up to the menu bar. A small grey space will open below the menu item. Drop your macro there. You can do that with as many macros and other commands as you may want on the menu. You also rename these commands on the menu bar as you rename them on the toolbar, by right-clicking while in "Customize" and editing the name.

So in a few minutes of spelunking you have created macros and put them on toolbars and the menu.

Is It A Table, Or Is It An Invoice?

Now for another cave.

Word has a remarkable set of "Table" tools that allow for extensive formatting. If you create a table, for instance, you can format the

MONTHLY SPECIALS
(while supplies last)

120 WATT Speakers $6
104 Mitsumi Keyboard $7
Floppy 1.44 . . . . . $15
Pentium 256K m/b & Intel P-133 CPU . . $95
486 m/b w/12mb Memory & DX2/66 CPU . . $60
Pentium m/b w/512K cache up to 166MHz. . $35

MOTHERBOARDS

Pentium® II 440 Ultra DMA 1 AGP Slot $85
TX Pro II Chipset w/512K/up to 233MHz w/ sound & Video . . $60
TX Pro w/512K Socket 7 On Board Sound/4MB AGP Video Card . . $85
PI ABIT TX Chipset/Jumperless/512K w/Sound. $75
PI TX Chipset/512K/up to 300MHz $55

BASIC SYSTEM
- Mini Tower Case
- TX Pro II Chipset Motherboard w/512K cache
- IBM 200
- 586 Cooling Fan
- 16MB EDO Ram
- Video On Board
- 2.1 Gigabyte HDD
- 1.44 Sony FDD
- 16 Bit Sound On Board
- 8X CD-ROM
- 33.6 Fax/Modem w/voice
- 3 button mouse
- 104-key Win 95 Compatible Keyboard
- 60 watt speakers

$403

HOME SYSTEM
- Mini Tower Case
- TX Pro II Chipset Motherboard w/512K cache
- 586 Cooling Fan
- 16MB EDO Ram
- Video On Board
- 2.1 Gigabyte HDD
- 1.44 Sony FDD
- 16 Bit Sound On Board
- 12X CD-ROM
- 33.6 Fax/Modem w/voice
- 3 button mouse
- 104-key Win 95 Compatible Keyboard
- 60 watt speakers

With the following CPU's...
Intel Pentium MMX 233/200 . . . . . $476/448
Cyrix MX 266/233 . . . . . $447/409
AMD K6 MX 233 . . . . . $418

OFFICE SYSTEM
- Mini Tower Case
- TX Pro II Chipset Motherboard w/512K cache
- 586 Cooling Fan
- 32MB EDO Ram
- Video On Board
- 4.3 Gigabyte HDD
- 1.44 Sony FDD
- 16 Bit Sound On Board
- 24X CD-ROM
- 56.6 Fax/Modem w/voice
- 3 button mouse
- 104-key Win 95 Compatible Keyboard
- 60 watt speakers

With the following CPU's...
Intel Pentium MMX 233/200 . . . . . $540/517
Cyrix MX 266/233 . . . . . $576/479
AMD K6 MX 233 . . . . . $487

PENTIUM II SYSTEM
- Super Mini Tower
- Pentium II 440 LX
- Pentium II - 266MHz
- Pentium II Cooling Fan
- 32 MB SDRAM
- 3D 4MB A.G.P. Video
- 4.3 GB HDD
- 1.44 FDD
- 16BIT 3D Sound
- 24X CD-ROM
- 56.6K Fax Modem
- 3-Button Mouse
- 104 Key Win 95 Compatible Keyboard
- 60 Watt Speaker

$720

HARD DRIVE
2.1GB HD. $117
3.2GB HD. $130
4.3GB HD $135
6.4GB HD. $180
8.4GB HD. $275

MEMORY
SIMM 72 Pin 16MB. . $16
SIMM 72 Pin 32MB. . $30
SIMM 72 Pin 64MB. . $70

SDRAM 16MB $16
SDRAM 32MB $35
SDRAM 64MB EDO . $78
Intel CPU . . . . . Call
Cyrix CPU. . . . . Call
AMD CPU. . . . . Call

VIDEO CARD
PCI 1MB 32-Bit Cirrus Logic. $16

PCI 1MB 64-Bit S3 Virge. $18
PCI 2MB S3. . . . . $28
PCI 4MB S3 Virge . . $30
Diamond 1MB $39
Diamond 2MB $45
Diamond 4MB $60
Monster 4MB PCI . $153
VLB 1MB Cirrus Logic $17

SOUND CARD
16-Bit Opti $12
16-Bit Yamaha $12
16-Bit Jazz $12

MONITOR
14" 0.28 Monitor . . $110
15" 0.28 Monitor . . $135
17" 0.28 Monitor . . $250
17" 0.25 Monitor Sony $560
17" 0.26 ViewSonic . $515

Mini Tower $19
Jumperless LED Setup

CD-ROM
12X $35
24X $44
24X Sony. $56
32X $52
36X $58

OTHER PRODUCTS
ISA Network Card. . . . $14
PCI Network Card. . . . $18
Video Camera. $135
Floppy Drive. $16
Mouse $5
80W Speakers $11
160W Speakers $19
240W Speakers $30

Pent. II 440LX m/b w/A.G.P. 4MB 3D Video & SIS Sound Pro
$110

FOR-U-COMPUTER
765 Mabury Rd. • San Jose, CA 95133
Tel. (408) 437-8718 • Fax (408) 437-8719
Open M-F 10-6:30 • Sat 10-5
www.forucomputer.com
E-mail: LTC765@forucomputer.com
Prices subject to change without notice. Not responsible for typ

The Right Price...The Right Advice

HEWLETT PACKARD VECTRA VL5

- Intel Pentium® 200MMX CPU
- 32MB RAM up to 192MB
- 2.5GB Hard Drive
- 2MB Video Card
- 1.44 Floppy Drive
- 8X CD
- MS Windows 95 & MS Keyboard
- Desktop Case

Monitor Not Included
Model #D4596B

$999

COMPAQ DESKPRO 4000N/200X DT

- Intel Pentium® 200MHz CPU
- 32MB RAM up to 256MB
- 1.6GB EIDE Hard Drive
- 2MB S3 Video Card
- 1.44 Floppy Drive
- Mini-Tower Case
- Compaq Keyboard & Mouse
- MS Windows NT Workstation 4.0

Monitor Not Included
Model 308320-002

$1037

A&A SCREAMER

- Pentium® 200MHz MMX CPU
- 32MB EDO RAM
- 2.5GB EIDE Hard Drive
- 2MB MPEG 64-Bit Video Card
- 1.44 Floppy Drive
- 16-Bit 3D Software Wavetable Sound Card
- MS Windows 95 CD Version
- Mini-Tower Case
- Multimedia Speakers

1-Year On-Site Service
Monitor Not Included
MPC-MMX 200MTX/2532M

$CALL

TOSHIBA

TECRA

520CDT, P166MMX, 32/2GB, TFT, 10X CD . . . $2299
550CDT, P266MMX, 32/3.1GB TFT, 10X. $3699
730CDT, P150MMX, 16/2.1GB, 12.1" TFT, 10X . $1499
740CDT, P166MMX, 16/3GB, TFT, 10X CD . . . $2499
750DVD, P233MMX, 64/5.1 TFT, 20X CD. . . . . CALL
780DVD, P266, 64/5.1 TFT, 24X CD $5299

SATELLITE PRO

470CDT, P200MMX, 32/2.1GB, TFT, 10X $2499
480CDT, P233MMX, 32/3.8GB, TFT, 10X $2699

PROTEGE

320CT, P266MMX, 32/4GB, TFT. $3399
660CDT, P150MMX, 16/1.35GB, 10X. $2099

LIBRETTO

100CT, P166, 32/2GB, 7.1 TFT $2499

IBM®

380 SERIES

TP 380ED, P166MMX, 16/30GB, TFT 20X . . . . CALL
TP 380ED, P166MMX, 16/2.1GB, FRSTN 20X . CALL

560 SERIES

TP 560, P133, 8/2.1GB TFT . . . . . CALL
TP 560X, P200MMX, 32/2.1GD Dscan. $2349
TP 560X, P233MMX, 32/4.0GB . . . . . CALL

700 SERIES

TP 760XD, P166MMX, 32/3GB, TFT 8X CD . . $4512
TP 760XL, P166MMX, 16/2.1GB, TFT $2599
TP 770, P233MMX, 32/4.0GB, TFT 20X CD . . . CALL

COMPAQ

ARMADA

1550 DMT, P133 16/1.4GB 10X $1699
1580 DMT, P150MMX 16/2.1GB 10X. . . . . CALL
7730 MT, P166MMX 32/2.1GB TFT . . . . . CALL
7770 DMT, P233MMX 32/3.0GB TFT $3743
7750 MT, P166MMX 32/4GB TFT. . . . . CALL
7790 DMT, P233MMX 16/1.4GB TFT $4599

MONITORS

Impression 17" w/Speakers $329
Adi MicroScan 5P 17" $409
Priceton 15" SVGA $229
Sony 300SF 20" SVGA $1059
Sony GDM 200PS 17" SVGA $669
Sony GDM 400PS 19" SVGA $829

HEWLETT PACKARD

Authorized Reseller

HP DeskJet 670C Printer $199
•Great performance at a low price •1 color cartridge included

HP DeskJet 890CXi Printer. $299
•Fast performance delivers increased productivity
•Accepts a wider range of media for a variety of output needs
•Plug'n'Play installation for both PC and Mac

HP DeskJet 692C Printer $275
•600 dpi resolution
•3-year warranty offers the longest protection in the industry

HP LaserJet 6Lxi Printer $379
•4ppm, 24MHz Motorola 68030 processor
•4,000 Monthly duty cycle

HP LaserJet 4000 Printer $1059
•1200x1200 dpi resolution •17ppm 4MB

HP LaserJet 6Pxi Printer $729
•600 dpi resolution •Plug and play for PC

HP LaserJet 4000N Printer $1359
•1200x1200 dpi resolution •17ppm, 8MB, Network Ready

HP LaserJet 8000 Printer $2299/2899
•24ppm, 16MB

apple

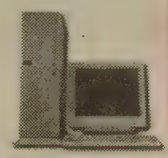
Power Mac 8620/300 32/4GB . . . $2899
24X CD - M6092LLA; C#92779

Power Mac 9600/350 64/4GB . . . $4199
24X CD w/Zip - M5906LLA, C#94035

Power Mac G3/233 32/4GB $1899
24X CD M6141LLA, C#91792

Power Mac G3/233 32/6GB . . . . . $CALL

COMPAQ



Deskpro 2000 P166 MMX $1389
M7 32/3.2GB, 16X CD W95 - 278750-002 / 91226

Deskpro 4000 P166 MMX. $1359
32/3.2GB W95 - 270600-007 / 91242

Deskpro 6000 MT P2/266 . . . . . $3199
64MB/4.3GB, 24X CD-NT 4.0 - 270740-000 / 92932

Proliant 1200 P233 32MB . . . . . CALL
Model 1 - 292910-001/92577

Proliant 1600 P266 64MB. $3605
Model 1-292930-001 / 93505

Proliant 500, 700 Series . . . . . CALL

HEWLETT PACKARD VECTRA VL

- Intel Pentium® II
- 32MB RAM
- 4.0GB Hard Drive
- 2MB Matrox Millenium Card
- 24X CD
- 1.44 Floppy Drive
- MS Windows NT 4.0

Monitor Not Included
Model D5044N

$1799

COMPAQ DESKPRO 4000S/266XMT

- Intel Pentium® II 266MHz CPU
- 32MB RAM
- 3.2GB EIDE Hard Drive
- Matrox MGA 2MB Video Card
- 24X CD-ROM Drive
- 16-Bit Sound Card
- 1.44 Floppy Drive
- Mini-Tower Case
- Compaq Keyboard & Mouse
- MS Windows NT Workstation 4.0

Monitor Not Included
Model 270800-003

CALL

NETWORKING SERVICES

- ***Networking Design & Consuling***
- ***Support (TCP/IP)***
- ***Multiple OS •Cabling***
- ***Internet Solutions***
- ***www. FTP Mail Servers***
- ***Firewalls***
- ***Web Page Design***
- ***Rackmount Systems***
- ***Troubleshooting***

DEALER • CLEARENCE • SPECIALS

HP Accesories

HP 51625A/15 ....$15, 516404 ....$10, 51644C ..$25, 516444 ....$25
C2291B.....$70, C2071A....$150, C2085B $52, C2525B ..$300
C2801A.....$700, C3003A..$30, C3004A ..$50, C3005A ..$50
C3607A.....$25, C3103A....$25, C3104A ..$25, C3162A ..$75
C3280A.....$25, C3543A....$275, C3820A $400, C3921A $175
C3926A.....$50, C4533A....$10, C5300A ..$600, G205A ..$400
F1074A.....$115, J2382A ..$175

IBM Accesories

OYH8095 ....$250, 06H748 ....$80, 12J2456 .....$50, 13H6714 .....$30
1969010.....$400, 3595001 ..$265, 3574002 ....$500, 39H7405 ....$147
41H9719.....$50, 41H9722 ....$50, 46H4209.....$155, 46H5994 ....$30

TECHNOLOGY, INC.

FREMONT
510.226.8650
Fax 510.226.8652
45277 Fremont Blvd. #11

SAN FRANCISCO
415.782.0000
Fax 415.782.0011
350 Sansome Street, Suite #M18

Since 1992!

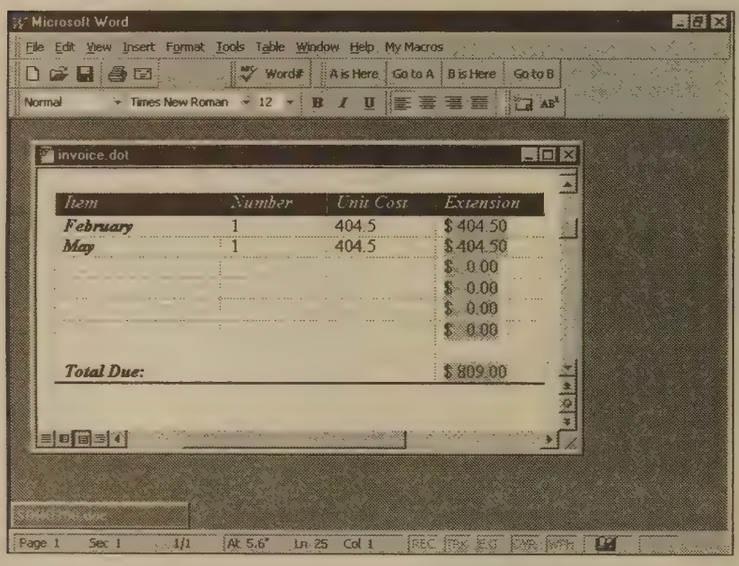
Authorized Service Center for HP, Compaq,& Toshiba

apple HEWLETT PACKARD OKIDATA COMPAQ TOSHIBA EPSON

Prices reflect cash discount.
Prices & availability subject to change without notice.
Not responsible for typographical errors. All logos are registered trademarks of their respective companies.

cells by right-clicking on a cell. A floating menu will appear and allow you to change alignment in the cell (left, center or right), to add bullets, and to change the text direction. The latter is wonderful for turning headings on their side above a table.

But there are other abilities hidden in tables. Microsoft is, after all, the maker of the spreadsheet Excel. Even if you do not embed a full worksheet, the "Table" in Word draws on the same technology as that used in Excel. In particular, you can do formulas, and that means you can make invoices that semi-automatically total themselves.


Microsoft Word
File Edit View Insert Format Tools Table Window Help My Macros
Normal Times New Roman 12
invoice.dot
Item Number Unit Cost Extension
February 1 404.5 $ 404.50
May 1 404.5 $ 404.50
$ 0.00
$ 0.00
$ 0.00
$ 0.00
Total Due: $ 809.00
Page 1 Sec 1 1/1 At 5.6" Ln 25 Col 1

I made a small table of data to try this out. I created a table of five rows and four columns. I labeled the columns "Items," "Unit Cost," "Number," and "Extension." I left a blank row at the bottom, and filled in some numbers in the "Unit Cost" and "Number" cells. So far this is just a standard Word table.

It became a mini-spreadsheet when I went to the empty cells at the right and opened up the "Table" menu. Near the bottom of this menu is an easy-to-miss choice, "Formula." If you choose that, a box will open with a proposed formula. When you choose the cell along the right side of a table, the offered formula is usually "=SUM(LEFT)." I replaced that default with "=PRODUCT(LEFT)." If you do this, your right-hand cell now holds the product of all the figures to the left of it—that is, the product of the "Items," "Unit Cost," and "Number." Since "Items" will just be names, not numbers, the product will be the "Number" times the "Unit Cost," or the "Extension." You can recalculate these values at any time by selecting the cell and pressing F9.

Now I want a total for these extensions. I put the cursor in the blank row, in the cell under the extensions. The formula I put in this cell is "=SUM(ABOVE)." It will add all the extensions above it.

Here we run into one of the limitations of Word's mini-spreadsheet. Excel would know to calculate all the extensions before it calculates the total. The Word spreadsheet isn't that bright. We need to calculate the extensions by selecting them, pressing F9, and then selecting the totals cell and hitting F9 again. It is, frankly, a pain.

But wait. We can make a macro to do it!

You need to have a way to select the "Extension" and "Totals" cells no matter where your cursor is when you begin. Bookmarks will do that.

When you "Go to..." a bookmark, the target cell or cells end up selected. The first step is to make a bookmark that refers to the Extensions. Select the "Extension" cells, then go to the "Insert" menu. Choose "Bookmark," and type "Extensions" as the name for the bookmark. Then create a bookmark for the "Totals" cell in the same way.

Turn on the macro recorder. Name the macro "Recalc". Now go to the "Insert" menu, choose "Bookmark" and select the "Extensions" bookmark. Hit "Go to..." and all the Extension cells will be selected. Hit F9 and they will recalculate. Then go to the "Insert" menu, select "Bookmark", then "Totals" and "Go to..." again. This time the Totals cell will be selected. Hit F9 again. Now the totals will be recalculated on the basis of the refigured extension cells. Turn off the Macro Recorder.

You can put this "Recalc" macro on a button or a menu—and of course you know how to do that from spelunking in the macro menus.

You can format the invoice to be more attractive by using "AutoFormat" from the Table menu. Experiment until you like the look. Then save the document as a template (say as "Invoice.dot"). Why? Because then you can choose "Invoice" as a template for any new document. Just fill it in and get those bills out on time.

What Did We Find In The Caves Of Word?

First, visiting the "Tools" menu we learned to record a macro. Then we learned to put macros on a toolbar-button or on a menu of our own.

We turned to the "Table" menu and built an invoice that calculates extensions and totals—without using Excel. Finally, we created a macro to automate the recalculations.

If you are like me, you may have begun this exploration with no idea of the possibilities built into Word. And there is more.

Next month we will go down the "Insert" menu to put a watermark on your pages, and discover how to index and summarize documents automatically. Bring your caving helmet and ropes—there's more treasure down there. ◆

Copyright © 1998 by Birrell Walsh. All rights reserved.

Even if you do not embed a full Excel worksheet, the "Table" in Word draws on the same technology as that used in Excel. In particular, you can do formulas, and that means you can make invoices that semi-automatically total themselves.

Resources:

Visual Quickstart Guide For Word For Windows, $15.95
Peachpit Press
(510)548-4393
www.peachpit.com

Microsoft Word 97 At A Glance
By Jerry Joyce and Marianne Moon
Quick Course In Microsoft Word 97, $14.99
By Joyce Cox and Christina Dudley
Step By Step Microsoft Word 97, $29.95
By Marie L. Swanson, et al
MS Press
1-800-MSPRESS
http://mspress.microsoft.com

We're hiring for sales positions. Call for details.

FastLink Network Products

Network Products for Less!

VISA MasterCard AMERICAN EXPRESS Cards Welcome

10 Base-T Twisted Pair Ethernet

3COM 3C509B-TP0 Single/5/20-Pk	60/283/1,049
3C509B TP&BNC/5/20-Pk	72/341/1,299
3C529B TP/ MCA/5-Pack/30Pk	230/987/5,480
3C900-TPO/5PK/20PK	56/265/992
INTEL EE Pro/10+ w/o Flash TP/5-Pk	57/264
EE Pro/10+ w/o Flash 20-Pk/80-Pk	956/3,630
SMC EtherEZ 10BT Single/5Pk	59/276
EtherEZ 20-Pk/50-Pk	1,020/2,359
EtherEZ Combo/5Pk/20Pk/50Pk	68/324/1,202/2,735

Fast Ethernet 10/100 MegaBit Cards

3COM 3C515 Etherlink 10/100 ISA Single/5-pk	162/770
3C515 Etherlink 10/100 ISA 20-pk	2,841
3C905BTX 10/100 PCI Single/5-Pk	97/455
3C905BTX 10/100 PCI 20pk/60pk	**1,599**/4,773
3C980-TX 100BTX Server Card/5Pk	166//812
3C597 10/100BaseT EISA/5-Pk	246/1,187
ADAPTEC ANA-6944A/TX 100BTX PCI 4-Port	557
AsanteFAST 10/100 PC & MAC PCI/5-Pk	151/738
COMPAQ Netelligent PCI 2 port 10/100	295
INTEL EExpress Pro 10/100 PCI/5-pk	87/414
EExpress Pro 10/100 PCI 20Pk/80Pk	1,400/5,120
EExpress Pro 10/100 EISA	260
EExpress Pro 100 PCI Server card/5Pk	358/1,681
EExpress Pro 100 Plus PCI 10/100/5Pk	91/436
EExpress Pro 100 Plus PCI 10/100 20Pk	1,607
OLICOM OC-2335 MCA 10/100 Fast Ethernet Card	240
SMC 9432 PCI Single/5/20/50Pk	70/328/1,162/2,650

Fast Ethernet Hubs

3COM Office Connect 4 100TX ports/8 100BTX	186/329
Office Connect TP1200 12 100TX ports	489
3COM 3C250C-TX 12 100 BASE TX Stackable Hub	798
3C250C-TX 24 100 BASE TX Stackable Hub	1,169
ASANTE AsanteFast 12-pt 100BTX/16 Port	700/1,016
BAY NETWORKS BayStack 202 12 100BTX	1,193
CISCO Fasthub 16 100BTX	827
HP AdvanceStack 12 100BTX/with MGMT	1,026/2,052
AdvanceStack 24 100BTX (J3272A)	1,087
INTEL Express 8 port stand alone hub 100BaseTX	480
MICRODYNE Century 6 Port 100BaseTX hub	364
NETGEAR FE104 4 100BTX/FE108 8 100BTX	139/231
FE508 8 100BTX StackableFE516 16 100BTX	464/754
SMC EZ Hub 100 8-pt 100BTX Hub	282
TIGERSTACK 100 12-pt 100BTX SMC5312TX	1,116
TIGERSTACK 100 24-pt 100BTX SMC5324TX	1,784

10/100 Dual Speed Hubs

3COM Office Connect 8 Port Dual Speed Hub	495
12-pt Hub 500 10/100 12/24 Ports	846/1,257
CISCO Fasthub 112T 12 10/100 Ports	862
124T 24 10/100 Ports	1,320
COMPAQ Netelligent 2724 24 port Dual Speed Hub	1,746
D-LINK 8 Port Dual Speed/16 Port Dual Speed	446/750
Intel Express EE110 10/100 Hub 12-pt/24-pt	1,016/1,440
EE220 10/100 on each port 12/24	941/1,325
NETGEAR Dual Speed 8-Ports	298
Dual Speed 8-Ports Stackable/16-Ports Stack	516/955
SMC EZ Hub 12 Port 10/100 hub	900
EZ Hub 24 Port 10/100 hub	1,351

Token Ring

3COM 3C319 TokenLink Velocity Single/5-Pk	218/1,050
3C359 Tokenlink Velocity XL PCI TR/5-pk	164/811
IBM Turbo TR 16/4 Type1/ 3 Single/PCI	216/296
PROTEON P1394+ Token Ring 16/4/10-Pk	210/2,016
SMC Token Ring Elite 16/4 Single/12-pack	220/2,431

PC Card/Card Bus Adapters

3COM 3C589 PC Card 10BT/COMBO	137/186
3C389 Tokenlink Velocity PC Card	283
3C562D-TP PC Card Enet 33.6/Fax/5-Pk	274/1,285
3C574-TX PC Card XL 10/100 Single/5PK	157/745
3C575-TX Card Bus XL 10/100 Single/5PK	157/745
IBM PC Card Coax/TP Adapter	242/261
Turbo 16/4 TR PCMCIA2 Adapter	294
INTEL EtherExpress Pro/100 Mobile 16-BIT	150
EEPro/100 Mobile 16BIT 5PK/20PK	714/2,610
EEPro/100 Mobile 32BIT SINGLE	158
EEPro/100 Mobile 32BIT 5PK/20PK	756/2,691
XIRCOM Pocket Adapter III 10BaseT	291
Pocket ENET III COMBO(BNC & 10BaseT)	325
PC Card IIPS 10BaseT/Combo/TR	147/183/346
Real Port PC Card 10/100+ 56K V.90 MODEM	377
PC Card Enet 33.6 Modem & Fax 10BT/Combo	279/315
Card Bus 10/100BTX (CBE-10/100BTX)	163

Ethernet Hubs/Concentrators

3COM SuperStack II Entry Hub 12/24	195/305
Office Connect TP4 3C16704 4 10BaseT	63
Office Connect 8-pt Hub TPO/TPC/TPM	83/122/397
OfficeConnect 16 TP, 1 BNC	214
SuperStack II PS Hub 40 12-pt/24-pt	502/884

ADDITIONAL SAVINGS ON THESE POPULAR ITEMS

3Com

SuperStack Switch 3300 12 port 10/100 stackable switch is now available at $ 1,759.

While supplies last, buy a 20 Pack of the Fast Etherlink XL 3C905B-TX featuring Wake On LAN and get a 12 Port Dual Speed 500 hub FREE! ($1,275 Value)

CHEYENNE

Get a Free Inoculan 25 User Client Pack via mail with the purchase of CA Protection Suite. Offer ends June 30th.

Get up to $100 back via mail-in rebate on selected Cheyenne ArcServe products

SuperStack II PS Hub 50 24-pt	955
SuperStack II Hub 10 24-pt/Mgmt Module	660/466
Redundant Power Supply	1,032
ASANTE 8-Port w/AUI&BNC/12-Ports/24 Ports	121/211/323
BAY NETWORKS CG1001E01 BayStack 12-pt	595
CG1001E02 BayStack 24-pt	982
800 8-pt /2800A 16-pt	195/572
HEWLETT PACKARD 10BaseT Hub 12 (J3300A)	264
10BaseT Hub 12M 12 Managed Ports (J3301A)	491
10BaseT Hub 24 (J3302A)/ 24M (J3303A)	399/759
AdvanceStack 8-port/16-port	138/295
AdvanceStack 12-pt/24-port	461/868
AdvanceStack Switch Module for 12-pt or 24-pt Hub	662
AdvanceStack Management Module J2603	466
AdvanceStack w/Mgmt Module 12-pt/24-pt	530/934

Ethernet Switches

3COM SSII Switch 1000 12 10BT, 1 100BTX **(PROMO)**	**769**
SuperStack II Switch 3000 12-pt 10/100 Switch	1,385
SuperStack II Switch 3000 8-pt 100BTX	2,036
SuperStack II Switch 3000 5-pt 100BFX	6,022
SuperStack II Desktop Switch 24TP,1 100BTX	1,247
SuperStack II Switch 320 12 10BT, 2 10/100BTX	658
OfficeConnect Switch 140 4-10BT,1-100TX	412
ASANTE ReadySwitch 4 RJ45, 1 Fast Ethernet	1,253
IntraStack 6014 DSB 12 10/100 ports	2,455
BayStack 301 22 10BT, 2 100BTX	2,727
BayStack 302 8-10BT, 1-100BTX	1,772
BayStack 303 24 10BT, 1 10/100BTX	1,138
BayStack 304 12 10BT, 1 10/100BTX	906
BayStack 350T 16PT 10/100BaseTX switch	1,897
BayStack 350F-HD 24PT 10/100BaseTX switch	3,414
CISCO CATALYST1912 12 10BT/1 100BTX	1,230
CATALYST 1924C-A 24 TP,1-100BTX,1-100BFX	1,620
CATALYST 1924-EN 24 10BaseT,2-100BTX	1,210
CATALYST 1924 24 10BastT, 2-100BTX RMON	1,608
HP AdvanceStack Switch 208 8-10BT,1-100BTX	780
AdvanceStack Switch 224 24-10BT, 1-100BTX	1,201
AdvanceStack 800T 4 100BTX, 4 Open	1,560
AdvanceStack 2000 6-slot chassis	1,776
AdvanceStack 2000 2 100BTX module J3191A	888
AdvanceStack 2000 4 10BT module J3102A	888
NPI Nuswitch FE200TT PLUS 2 10/100 ports	375
FE200TF PLUS 1 10/100 TX & 1 10/100 FX	680
FE-210 2-100,10-10BT/FE-106 1 100, 6 10BT	900/899
FE-224 2-100TX, 24-10BT	1,306
FE-600 + 5-100TX, 1 Open slot	833
NETGEAR SW510 8 10BT + 2 10/100BaseTX	619
SW518 16 10BT + 2 10/100BaseTX	923
FS102 2 10/100 + 2 uplink/FS104 4 10/100	252/458
FS508 8 10/100 + 1 uplink	1,223
SMC EZSwitch (6408TT) 8-10BT, 2 100BaseTX	670
EZSwitch (6416TT) 16-10BT, 2 100BaseTX	923
TigerSwitch 8+8TX, 8 10BT+8 100BTX switch	1,339

Stackable Fast Ethernet Switches

3COM SSII Switch 1100 12 10BT, 2 100BTX	1,099
SSII Switch 1100 24 10BT, 2 100BTX ports	1,307
SSII Switch 3300 12 ports 10/100BTX ports	1,759
SSII Switch 3300 24 ports 10/100BTX ports	2,575
SSII Switch Matrix Cable/Module	100/743
SSII Switch 3900 24 10/100 ports, 1 GBit port	5,354
SSII Switch 3900 36 10/100 ports, 1 GBit port	6,443
INTEL ES510T 24 PORT 10/100 Stackable Switch	2,633
ES500MTX 4 PORT 10/100 Module for 500 Switch	694
ES500MFX 2 PORT 100FX Module for 500 Switch	1,039
ES500MSI Stack interface Module to stack 2 switch	208

Tape Backup Solutions

CHEYENNE ARCserve v6.1 NLM 10 Users	271
ARCserve for NW Single Server, Unlimited Users	**340**
ARCserve for IntranetWare for Small Bus	241
ARCserve v6.1 WRKGRP-Up to 25/Over 25	479/1,156
Changer Option for ARCserve/Push Agent	423/300
Windows NT Agent for ARCserve	330
NetWare Server Suite(Arcserve, Faxserve, Inoculan)	615
Open File Agent for NW/Disaster Recovery	426/324
SEAGATE Backup Exec 1 Server 25 Users	329
Backup Exec Single Server/Enterprise NLM	462/922
Backup Exec Autoloader Option	393
Disaster Recovery Option for NetWare	327
STAC Replica for NetWare/Multi-Server Option	419/713
EXABYTE EXB-8700LT 8mm 7-14GB drive only	720
EXB-8700SW 8mm 7-14GB w/ Server software	1,002
HP C1554 DDS3 4mm 12-24GB DAT Int/Ext	1,045/1,145
C5648A 72-144GB DDS3 autoloader	2,744
C1559 Surestor Ext 72-144GB DDS3 autoloader	3,593
C1536 DDS 4mm 2-4GB DAT Int/Ext	456/556
C1599 DDS2 4mm 4-8GB DAT Int/Ext	748/848
C1553 24-48GB Autoloader Int/Ext	2,230/2,530
SEAGATE INT. AIT 50GB WIDE SCSI2	2,575
INT. SIDEWINDER AIT 200GB WIDE SCSI2	5,321
EXT. SIDEWINDER AIT 200GB WIDE SCSI2	5,817
SONY SDT-9000 4mm DDS3 24GB Int/Ext	1,372/1,417
SDT-9000 w/Arcserve Enterprise Int/Ext	2,329/2,432

Remote Access

3COM Office Connect Boundary Router 3C8841A	1,244
Office Connect Remote 511 ENET,ISDN	569
Office Connect Remote 521U ENET, ISDN, POTS	718
Office Connect Remote 531U ENET, ISDN, ASYNC	1,066
Office Connect Remote Dual Analog	547
ARTISOFT InSync Modemshare 1/2/4/8Pt.	138/198/383/560
CISCO 2501 1 ENET, dual serial router (software req)	1,906
2514 2 ENET, dual serial router (software req)	2,340
EMULEX Connect Plus 2 ports/8 Ports	582/2,262
NOVELL NetWare Connect 2	353
NetWare Connect 8/32 pts	1,331/3,920
SHIVA Netmodem/E 28.8/AccessPort/D Enet	871/690
Lanrover/E Plus w/2 Async ports/4 Async	1,334/2,532
Lanrover/E Plus w/2 v.34/8 PT w/4 v.34	1,771/3,320
Lanrover/E Async 8 Async/8 v.34 modems	2,810/4,528
DIGI INTERNATIONAL Digi 2-Pt/4-Pt/8-Pt	200/455/588
Acceleport 8EM w/RISC CPU, DB25 ISA/PCI	673/673

WAN Connectivity

3COM Impact IQ 3C882	216
ASCEND Pipeline 15 w/ 2 POTS ports NT1	325
Pipeline 25-FX Bridging	457
Pipeline 50 w/NT1, COMP, IPX,IP/ with Firewall	604/946
Pipeline 50 w/ 1 Lease 56 & 1 SW56	1,196
Pipeline 75 Multi IPX, IP, 2 Analog	679
Pipeline 75 Multi IPX, IP, 2 Analog with Firewall	1,026
Pipeline 130 w/FT1,T1,ISDN	1,386
Pipeline 130 ISDN & L56/SW & L56	1,342/1,412
Max 200 Plus w/4 BRI Cards	3,043
CISCO 762 ISDN Rtr/Cisco 766 w/2 Analog Pts	544/668
Cisco 772 4-10BT/Cisco 776 4-10BT, 2 Analog	622/746
HP AdvanceStack Internet Router Card J3138A	2,773
SHIVA Lanrover/E Plus 1-BRI ST, v.34, 3 CHAN	1,918
Lanrover/E Plus 2-BRI ST, 4 Channels, Enet	2,075
Lanrover/E Plus 4-BRI ST, 8 Channels, Enet	3,929
US ROBOTICS Sportster ISDN adapter	188
DataBurst Ext. Parallel Port ISDN w/NT1	275
Paradyne 7610 56/64K DDS CSU for Frame Relay	336
3150 T-1 Frame Relay CSU	1,157
ADC KENTROX D-SERV FrameRelay 56/64CSU/DSU	347
D-SERV FrameRelay up to T1 CSU/DSU	978

Internet Solutions

3COM OfficeConnect ISDN LAN modem	419
Office Connect Remote Dual Analog	547
Gateway 535 ISDN IPX to IP	1,453
BAY NETWORKS Instant Internet 100 1 ENET/ISDN	757
100 w/ 1 Enet, 33.6/1 Enet w/ 56K x2	602/757
20 Usrs 1 Enet w/33.6k/2 Enet W/ 33.6	1,896/2,086
20 Users, 1 Enet w/ ISDN/2ENET w/ ISDN	2,200/2,403
100 Users w/ Dual-Enet & DDS support	3,159
100 Users w/ Dual-Enet & T1 CSU/DSU	3,821
CISCO Microweb Server	862
FARALLON Netopia Internet Router IP/Appletalk	924
Netopia Internet Rtr TCP/IP 29-Users/.Unlimited	569/624

Network Printing Solutions

CASTELLE LANPress 3P/100 (10/100BTX)	328
HEWLETT PACKARD JetDirect 150X 1 port, IPX	172
JetDirect EIO 10/100 Print Server J3113A	344
JetDirect 10BT MIO/COMBO	339/389
JetDirect Card for 10/100Base-TX J2556B	407
JetDirect Ethernet EX Plus/ EX Plus 3	250/357
JetDirect Token Ring EX/EX Plus3	567/682
INTEL Netport Express Pro 10BT Int(MIO)/3 Pack	299/747
NetportExpress Pro 10BT Ext. 2P/1S/3 Pack	391/1,068
NetportExpress Pro 100 10/100BTX 1P/3Pack	273/739
NetportExpress Pro 100 10/100BTX 2P/1S	390
NetportExpress Pro 100 10/100BTX 3PK	1,068
NetportExpress Pro Token Ring	548

Network Fax Solutions

3COM Office Connect Fax Server (1L)	1,277
CASTELLE FaxPress 1500 1-Line/2-Line	1,970/2,365
Faxpress 3000 2-line/FaxPress 3000 4-line	2,948/3,574
Faxpress 3500 2-line/FaxPress 3500 4-line	3,434/4,088
CHEYENNE FaxServe NLM 5/10/25	358/658/1,078
FaxServe NLM 50/100/250	1,679/2,333/3,545
FaxServe for WinNT 5/10/25/50 Users	238/420/839/1,319
LANSOURCE FAXport 5 Users/10 Users	273/406
FAXport 25/50/100	676/999/1,300
FAXport 4 modem add-on	204
FAXport 5 User add-on/Unlimited Users	204/1,900

Uninterruptible Power Supplies

APC Back-UPS 400/450/600	151/185/256
Back-UPS Pro 420/650/1000/1400	251/310/404/521
Powerchute Plus for Novell/Unix/Windows NT	99/149/99
Smart-UPS 700NET/1000NET/1400NET	389/540/671
Smart-UPS 2200NET/3000NET	1,067/1,788
Matrix 3000/5000/Smartcell	3,720/4,616/537
SNMP Agent for Novell/SNMP Mgr for Netware	125/145

Cable Testers & Supplies

RJ45 10 BaseT Connectors (100 pak)	40
10Base-T Cable (1000' min) LV3/LV 5	100/200
FLUKE LAN CableMeter 620/CableMeter 650	728/1,760
MICROTEST Cable Tester	300
Penta Scanner w/Super Injector	3,019

E-Mail

MS Exchange Server Single w/ 5/10/25	1,014/1,368/2,160
Exchange Server Enterprise w/25/50 Clients	4,099/5,429
Exchange Add'l Clients 5/20	366/1,160

Network Management

3COM Transcend Workgroup Mgr for Windows	461
Transcend Enterprise Mgr for Windows	2,396
APC Master Switch E515 (Remote Power On/Off)	492
HP Openview Pro. Suite	1,037
INTEL LanDesk Mgmt Suite 5/10/100 users	522/696/4,240
LanDesk Server Manager Pro	864

Network Utilities

CHEYENNE AuditWare for NDS 100/Enterprise	460/851
Directory Mgmt. Combo/Enterprise	850/1,951
InocuLAN Wrkgrp/1Svr-Unlimited	301/600
InocuLAN 5 Svr-Unlimited Users	2,363
InocuLAN Option v4.0 for AS 6 for NW	298
INTEL LanDesk Virus Protect Single Svr NW&NT	329
Single Svr w/ unlimited clients	1,055
Client Access License for LanDesk Virus Prot 5/25	94/482
SEAGATE Prepare! Disaster Recovery SW	459

VINCA Server Mirroring

CHEYENNE ArcServe Replication for NT	1,798
VINCA Campus Standby Server Software for NW	2,955
Standby Server NetWare/Windows NT	2,954/2,586
Entry StandBy Server/SnapShot Svr for NW	985/757
Standby Server Many-To-One	5,172
CO-Standby Server for NT	2,990

Windows NT Solutions

3COM Transcend Workgroup Mgr for NT	463
Transcend Enterprise Manager	2,353
CHEYENNE Arcserve for Windows NT v6.5, Single Svr	414
Arcserve for Windows NT v6.5, Enterprise Edition	**675**
Arcserve Storage Suite-Backoffice Sm Bus. 5 Usr	242
Arcserve Storage Suite-Backoffice Sm Bus. 25 Usr	394
Arcserve Push Agent for NT or NetWare	300
Arcserve Changer Option for Windows NT	365
Arcserve Disaster Recovery Option for NT	236
InocuLAN for Windows NT 1 Svr/Option for NT	600/298
Open File Agent for Windows NT	421
Protection Suite for Exch Single/Enterprise	1,183/1,600
INTEL Landesk Workgroup Mgr 25	1,615
LANDesk Virus Protect NT	1,028
MICROSOFT Windows NT Workstation	317
Windows NT Server w/5/10 Clients	810/1,128
Windows NT Client Single/20 Clients	34/658
SMS System Mgmt Server w/5 Clients	943
Proxy Server for NT4	995
SEAGATE Backup Exec for NT 1 Svr/Ent	493/864
Backup Exec Autoloader for NT	434
Open File Manager for NT/ Disaster Recovery	425/328

Servers/Network Computers

HP Netserver E50 P2/300, 32MB,SCSI,24X	2,047
Netserver E50 P2/300, 64MB,4GB,24X	2,588
Netserver E45 P2/266, 32MB,SCSI,24X	1,806
Netserver E45 P2/266, 64MB,4GB,24X	2,183
ACER PowerFlex 4000 P200 MMX,16MB, 3.2G, 32XCD, Sound & 10/100 Ethernet built-in	899
ACER PowerFlex 4000 P233MMX, 32MB, 4.3 GB	999

- LOWEST PRICE GUARANTEE ! ASK FOR DETAILS.
- Over 50,000 items from over 700 vendors. Call us for those hard to find items. Our computerized catalog can locate them within seconds.
- VISA, MC & AMEX Accepted. NEVER A SURCHARGE.
- Same day shipping & NEXT DAY guaranteed delivery available on most orders.
- Courtesy TERMS available to Government, Education, & Fortune 1500 Accounts.

1-800-788-LANS

HRS: M-F 8:00 AM TO 6:00 PM PACIFIC TIME
ADDR: 90 South Spruce Avenue, Suite N
South San Francisco, CA 94080
PHONE: 650-872-1376 **FAX:** 650-872-6634
email: fastlink@ix.netcom.com

- Fortune 1500 companies, Government, & Education P.O. accepted on approved credit.
- International orders accepted. Payment by AMEX or Wire Transfer.
- Restocking fee applies to all non-defective returns and refused shipments OPENED SOFTWARE IS NOT RETURNABLE.
- Prices & Specifications subject to change without notice.
- We are not responsible for typographical errors.
- Shipping & Handling charges will be added to all orders.
- Quantity pricing available for 10 units or more

One Small Step For Bean Counters

High-End Accounting Software For Windows 95/NT

By David A. Simon, CPA and Jennifer R. Cherniss

The study supports widely held skepticism that, even for the latest generation of packages, the quality doesn't seem to match the price.

The latest generation of the best-selling, high-end, Windows 95/NT-based accounting software does more than the DOS packages they replace, and some deficiencies have been eliminated. But shortcomings do remain, and vendor claims aren't always reliable.

That is the thrust of a major academic study published in the March, 1998, *Journal of Accountancy*. The principal investigators include Professor Harley M. Courtney, accounting professor and director of the Center for Accounting Software Evaluation at the University of Texas, Arlington; an assistant professor of accounting at Texas Wesleyan University; and a doctoral candidate at the University of Texas.

The 17-page report considers nine packages: AccPac, Great Plains Dynamics, Impact Encore, MAS 90, Progression, SBT Pro, Solomon, Traverse, and Visual Accounting.

Accounting installations of this type might contain a half-dozen modules totaling several thousand dollars. As a typical example, the Great Plains Dynamic multi-user version lists for $3,000 for the system manager plus $1,000-$2,000 per module. Single user versions cost less than half that.

The study supports widely held skepticism that, even for the latest generation of packages, the quality doesn't seem to match the price.

Independence And Objectivity

Every few years the Center performs a comprehensive accounting software evaluation. The current one is again headed by Professor Courtney.

The previous study, published in 1995, looked at 15 high-end DOS based packages, concluding that all were "seriously deficient." The emergence of Windows 95 versions has rendered that report outdated.

Still, many businesses continue to use the DOS platform for their accounting system. Little high-end software was developed to run under Windows 3.1, partly because 3.1 was transitional, and also because it was not sufficiently stable for mission-critical accounting applications. For similar reasons, the new generation of accounting software is aimed more toward NT rather than Windows 95, although many will run on both.

Having leapt from ancient DOS to the Windows 95/NT environment in a single bound, vendors had the opportunity to start afresh, rather than continuing to Band-Aid old source code. In some instances, however, entrenched patterns from days of yore have been carried forward.

The Texas team's analysis, having been prepared for CPAs and a professional publication, ventures into more critical territory than the typical review found in the popular press. Instead of awards and scale-of-one-to-ten ratings, the focus is on technical deficiencies.

Not all invited vendors participated in the current study. Some have no Windows 95 release yet. Platinum Software's DOS entry had been raked over the coals in the 1995 study, and they reportedly failed to answer researcher's inquiries about Platinum for Windows.

Half Of What You See

In response to preliminary survey questions some vendors seemed to answer whatever they thought sounded good. "It appears," the study reports, "that some respondents worked on the assumption that a 'yes' answer reflected well on their product."

However, the report explains, "when we asked for [follow-up] details... it became apparent that not only did the products lack these functions but also the representatives were not familiar with the technology—yet they responded affirmatively anyway."

These observations highlight the importance of seeking objective, critical analysis of these products, prepared independent from the vendors and their PR agencies.

Audit Trails

Accounting software should provide a competent audit trail—the record of ledgers and journals permitting auditors to form supportable opinions about financial statements.

Rave Reviews! Great Products! ★★★★

"Good performance, reasonable price"
PC World, March 1998

"Solid components, crisp monitor, good performance for its processor class"
PC World, January 1998

"Fast, good price for Pentium Pro-200MHz"
PC World, January 1997

NETiS BEST BUY

- PCI Pentium MMX Motherboard w/512K
- Intel Pentium MMX Processor
- 32MB EDO RAM, Exp. to 256MB
- 3.2GB Ultra IDE Hard Drive
- Teac 1.44MB Floppy Drive
- ATI 3D XPression w/4MB SGRAM
- Toshiba 24X EIDE CD-ROM
- Supra 33.6K Internal Fax Modem
- SoundBlaster 16-bit PnP Sound Card
- Amplified 60W Speakers
- Middle Tower Case/Keyboard/Mouse
- 15" NI .28mm dpi Monitor
- MS Windows 95
- 1 Year Parts & Labor Warranty

FREE Anti-Virus Software By Trend Micro & Mousepad w/System Purchase

intel inside pentium

166MHz MMX	$1058
200MHz MMX	$1065
233MHz MMX	$1093

NETiS STARBURST

- Pentium II Motherboard w/Intel AGPset
- Intel Pentium II Processor w/512K Cache
- 32MB SDRAM DIMM Memory
- 3.2GB Ultra IDE HD
- Teac 1.44MB Floppy Drive
- Matrox Millenium II AGP w/4MB WRAM
- Toshiba 24X EIDE CD-ROM
- US Robotics 33.6K Internal Fax Modem
- Sound Blaster 16-bit Sound Card
- Amplified 60W Speakers
- ATX Middle Tower Case w/Power Supply
- 104-Key Enhanced PS2 Keyboard
- 17" NI .28mm dpi SVGA Monitor
- MS Windows 95
- 1 Year On-Site Parts & Labor Warranty

PC World Top 20 intel inside pentium

233MHz	$1498
266MHz	$1559
300MHz	$1685
333MHz	$1799
350MHz (100MHz)	$Call
400MHz (100MHz)	$Call

COMPAQ SERVER

- ProLiant 800 6/200 Server
- Intel Pentium Pro 200MHz CPU w/256K
- 32MB ECC DIMM Memory
- Non-Pluggable 2.1GB UW SCSI Hard Drive
- Integrated Ultra Wide SCSI Controller
- Teac 1.44MB Floppy Drive
- Integrated SVGA w/1MB DRAM
- 8X EIDE CD-ROM
- Keyboard and Mouse
- Sampo 14" Non-interlaced SVGA Monitor
- Netelligent 10 T/2 PCI UTP Network Card
- Integrated Insight Manager Software
- 3 Years On-site Warranty

intel inside pentium

▶ Server with 128MB memory **$2969**

$2349

HP BRIO

- Brio PC 8334
- Intel Celeron 266
- 32MB SDRAM DIMM Memory
- Integrated PCI EIDE Controller
- 4GB EIDE Hard Drive
- 1.44MB Floppy Drive
- S3 Trio 64 w/2MB DRAM
- 24X EIDE CD-ROM
- Sound Blaster Compatible Sound Card
- Keyboard & Mouse
- MS Windows 95
- 3 Years Parts & Labor Warranty

intel inside pentium

▶ Please call for other models and options

$1159

COMMUNICATIONS

Plug&Stor™ 100

For easily expanding, managing, and sharing storage on a network
PS100EX-1 (1-SCSI Channel)
Pentium 200MHz MMX w/32MB EDO RAM

Special **$1169**

Novell Intranetware 4.11	Call
MS NT 4.0 w/5-User (OEM)	$424
MS NT 4.0 workstation (OEM)	$125
4-Port/9-Port 10BT Hub	$49/$66
16-Port/24-Port 10BT Hub	$113/$229
4-Port/8-Port 10/100BT Hub	$98/$259
D-Link ProFAST 10/100 Adapter	$47
3Com ISDN Modem	$222
3Com PCI 905TX 100BT Ethernet	$68
Intel PCI 100BT Ethernet	$59
Ascend Pipeline 50	$617
Ascend Pipeline 75	$680
Cisco 2501 Router	$1,789

One Stop Shopping for Computer...

NETWORK SOLUTIONS

- Networking Hardware/Software
- Network Design, Installation & Training
- Turnkey Solution/System Integration
- Internet Connectivity Solution
- Top-Notch Expertise/Support in Novell
- NetWare, UnixWare, Windows NT,
- SCO UNIX/ODT, Solaris, Lantastic &
- TCP/IP Networking
- File/Print Server
- NetWare/UNIX Connectivity
- Internet E-Mail Gateway
- Network Backup Server
- FAX Server
- CD-ROM Server
- Dial-in/Dial-out/Modem Server
- Storage Subsystems

NOTEBOOKS

COMPAQ

7710MT-5/150MMX, 16MB, 1.6GB HD, 33.6, TFT	$1,619
1550DMT - 5/133, 16MB, 1.4GB HD, 10X, 33.6, TFT	$1,799
4210T-5/233MMX, 32MB, 3GB HD, TFT	$2,849

TOSHIBA

440CDT-5/133MMX, 16MB, 1.44GB HD, 10X, 33.6, TFT	$1,774
320CDS-5/233MMX, 32MB, 4.1GB HD, 20X, 56K, TFT	$2,039
520CDT-5/166MMX, 32MB, 2.1GB HD, 10X, 33.6, TFT	$2,349
470CDT 5/200MMX, 32MB 2GB HD, 10X, 33.6, TFT	$2,552

Twinhead

Slimnote 9T-5/166MMX, 16MB, 2.1GB HD, 20X, DSTN	$1,467
Slimnote TE-5/200MMX, 32MB, 2.1GB HD, 20X, TFT	$1,744
Slimnote TE-5/233MMX, 32MB, 2.1GB HD, 20X, TFT	$1,978

Please call for pricing on other products

PRINTERS

HEWLETT PACKARD

Color InkJet

692C, 5/1.7 ppm Black/Color	$264
720C, 8/4 ppm, black/color	$325
890Cxi, 9/5 ppm, black/color	$429

LaserJet

6Lxi, 6 ppm, 600 dpi	$432
5, 12 ppm, 600 dpi, 33MHz RISC	$1,057
4000, 17 ppm, 1200 dpi, 100MHz RISC	$1,176
4V, 16 ppm, 600 dpi, 33MHz RISC	$1,509
5Si, 24 ppm, 600 dpi, 40MHz RISC	$2,529
5SiNx, 24 ppm, 600 dpi, 40MHz RISC, NIC	$2,777
Color 5, 10/3, ppm, black/color, 1200 dpi	$3,977
Color 5M, 10/3 ppm, 1200 dpi, PostScript, NIC	$4,998

ciscopro™ Authorized Dealer
Microsoft Windows NT Compatible
iiyama SAMPO IBM VAR Reseller
COMPAQ Authorized Dealer & Service Center
Twinhead
iiyama VAR Reseller
Novell Gold Authorized Reseller

INTERNET/WORLD WIDE WEB SETUP AND CONSULTATION

Consulting services on:

- Internet Service Provider Selection
- Hardware/Software Selection
- Security Firewall Design/Setup
- WWW Server/Email/FTP Setup
- WWW Home Page Design
- ISDN/Frame Relay/T 1 Setup

☎ **650-363-0293**
Fax 650.363.0281
Email: sales@netistech.com
WWW Page: *http://www.netistech.com*
705 Veterans Blvd., Suite 1, Redwood City, CA 94063
Business Hours (PST): 8:30am-6:00pm (Mon-Fri)
10:00am-4:00pm (Sat)

NETiS Technology, Inc.

One stop shopping for your computing needs
Since 1989

☎ **408-263-0368**
Fax 408.263.4624
Email: sales@netistech.com
WWW Page: *http://www.netistech.com*
1606 Centre Pointe Drive Milpitas, CA 95035
Business Hours (PST): 8:30am-6:00pm (Mon-Fri)

Prices, Terms, Specifications, & Availability subject to change without notice. Not responsible for typographical errors. Prices reflect Cash discount. 48- Hours system burn-in. Registered Trademarks are Trademarks of their respective

NETiS Technology, Inc. 408-263-0368 650-363-0293
Email: sales@netistech.com
WWW Page: http://www.netistech.com

In any accounting system, users need to be able to trace transactions from source documents (such as invoices), to the original transaction entries (journals), to account listings (ledgers), and ultimately to financial reports; or to start with the reported amounts and track back to the original documents.

The new generation of accounting software is aimed more toward NT rather than Windows 95, although many will run on both.

The details of how audit trails are managed in computerized accounting systems are complex, and will be covered here only in a few examples of deficiencies.

Typically, accounting information is passed to users in hardcopy format, for ease of use or documentation purposes.

Macola's Progression, however, does not print the general ledger. It permits only a screen display of the transactions recorded in a single general ledger account. For example, if you want to know what's gone into legal and professional,services to make the balance so large, you'll have to scroll through the screen and do without hardcopy.

Great Plains Dynamics, MAS 90, Solomon, and Traverse provide an inventory ledger in both units and dollar values, as accountants would want. AccPac, however, provides dollar values only, and Visual Accounting lists only units, without dollar values.

The initial entry of a transaction in an accounting system is made to a journal. The Courtney study indicates that, while most of the packages provide generally satisfactory journals, Great Plains Dynamics and MAS 90 do not. Great Plains prints journals only by batch number; it will not print the journals by user-specified date, by transaction entry session, or by reporting period. MAS 90 prints journals for the general ledger module only, which may be unacceptable for many users.

The user should be able to generate a report sorting by some reference number so the desired item can be readily located. You shouldn't have to search for a needle of a transaction in a haystack of accounting reports in order to find an entry once you know the entry number.

But in many cases the software will not print reports that are sorted by the criteria (such as voucher number) being used as a cross reference.

For example, SBT Pro allows the user to enter a voucher number to trace from vendor accounts to the purchase journal, but it creates no voucher number when the purchase is recorded. Neither is there a voucher number field in either the purchase journal or in the vendor ledger. You obviously can't sort by voucher number if there is no field for it.

Impact Encore and MAS 90 rely on invoice number to trace from sales entries in the accounts receivable ledger to the sales journal. With this approach, if using hardcopy, the user must somewhat randomly scan to find the relevant journal.

The good news in the study is that Windows 95/NT versions of AccPac and Macola no longer delete journal entries from the hard drive when the program sorts them into accounts, as was a problem in the DOS packages from those publishers.

The report suggests that software developers don't always seem fully knowledgeable about

GOLDEN MICRO COMPUTERS

BEST SERVICE IN TOWN

5-Year Labor & 1-Year Parts Warranty on All Computers

Complete Business Services

• Networking • Installation • On-Site Service

Complete Repairs & Upgrades

MONTHLY SPECIAL

P5-200MMX Intel Tucson System — $699

- 64MB EDO RAM
- 4.3GB Hard Drive
- 2MB PCI VGA
- Yamaha Sound
- 32X CD-ROM Drive
- 56K US Robotics Fax/Modem V.90
- Stereo Speakers
- Keyboard, Mouse

P6 MULTIMEDIA SYSTEMS

- Intel Atlanta/Seattle MB & Intel CPU
- 512K Cache
- 64MB SDRAM
- 8.4GB EIDE HD w/Ultra DMA
- Teac 1.44 Floppy
- ATI all in one 8MB AGP (tv/vcr)
- 32X CD-ROM
- Build in Yamaha sound
- 60 Watt speakers
- ATX Medium Tower case
- Keytronic Keyboard & PS/2 mouse

Monitor Sold Seperately

Pentium® II 233(LX/BX) . $1299/1369
Pentium® II 266(LX/BX) . $1369/1409
Pentium® II 300(LX/BX) . $1469/1539
Pentium® II 333(LX/BX) . $1599/1699
Pentium® II 350(BX) $1899
Pentium® II 400(BX) $2099

P5 MULTIMEDIA SYSTEM

- P-5 Motherboard w/512K Cache
- Pentium® Processor Based Systems
- PCI and ISA Bus
- 32MB EDO RAM
- 4.3GB Hard Drive
- 1.44 Floppy Drive
- Diamond Edge 3D PCI Video w/2MB w/Sound
- 2S, 1P Ports
- Mini-Tower or Desktop Case w/230W PS
- Enhanced 104 Keyboard
- 24X Toshiba CD-ROM
- 80-Watt Stereo Speakers

Monitor Sold Seperately

P5-90 ..... $549
P5-133 ..... $599
P5-166MMX $619
P5-200MMX $639
P5-233MMX $659

RACK-MOUNT PC

Passive Backplane

14 Slots ISA Only..... $89
14 Slots ISA/PCI $129

CPU Cards

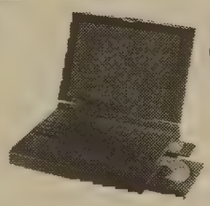
486DX4-100/DX2-66 All-in-one $229
P5 75-200MHz PCI/ISA $349
Pentium® Pro 200 w/VGA $790
Pentium® II 233-300MHz PCI/ISA $990

Monitors Enclosures

19" Rack-Mount PC Chassis $239
19" Rack-Mount Monitor Enclosure..... $270
Rack Mount 14" Monitors

Notebooks

- Pentium® 200MMX-233MHz
- 12.1" Dual Scan Display
- 2MB VGA Video RAM
- 2.1GB Hard Drive
- 20X CD-ROM
- 32MB EDO RAM
- 1.44 Floppy Drive
- 16-Bit Sound Built In
- AC Adaptor • Battery • Case



$1499

for 12.1" Active ..... Add $300
for 13.1" Active ..... Add $800
for 14.4" Active ..... Add $1200

Notebook Accessories

RAM

8MB $65
16MB $95
Docking Station $299

Hard Drive

2.1GB $199
3.1GB 2.5" 239

Fax Modem

33.6K/56K $159
EtherNet Card $89
Earphone w/Microphone $25

IBM/TOSHIBA/COMPAQ RAM/HARD DISK AVAILABLE!

CD-ROMs

HP IDE 6x4x2 Rewritable $425
Yamaha SCSI 6x4x2 Rewritable $549
Panasonic SCSI 8x4 Recordable..... $339
Blank CD (740MB) $1.99
12X/24X/32X SCSI CD-ROM .. $69/109/119
12X/24X/32X IDE CD-ROM $55/65/75

MULTIMEDIA

Sound Blaster 16PnP $49
Sound Blaster AWE 64PnP $59
16-Bit Sound Card $25

SPEAKERS

60/80/240 Watt..... $15/25/35

CASE & POWER SUPPLY

Mini Tower Case w/230 Watts $30
Super Mini Tower Case w/230 Watts..... $35
Desktop Case $25
Medium Tower Case w/230 Watts..... $45
Full Tower w/250 Watts..... $65
Medium ATX w/230 Watts..... $79
Full ATX w/250 Watts $99
200/230/250/300 Watts Power supply..... $20/23/28/59
HD Pull Out Removable Box $22
250/300 Watt ATX Power Supply UL $45/59
Ext HD /CD-ROM Case IDE/SCSI $75
450 VA UPS (Uninterupted power) $89

MODEMS

14.4K Int/Ext $29/39
33.6K w/Voice..... $49
56K Int USR V.90 ..... $125
56K Int USR w/Voice V.90..... $139

TAPE DRIVES

Colorado T4000 4GB..... $389
Iomega Ditto 3.2GB..... $159

MOTHERBOARD & CPU

386DX33/40..... $20
486SX/DX25/33 w/8MB..... $40
486DX4-100 M/B ISA/PCI/VLB&CPU $85
P5-90/133/512K..... $119/139
P5-166MMX 512K $159
P5-200 512K $179
P5-233MMX 512K $219
P6-PRO-180 VENUS 256K..... $259
Pentium® II 233 Atlanta/Seattle $379/449
Pentium® II 266 Atlanta/Seattle $419/489
Pentium® II 300 Atlanta/Seattle $549/619
Pentium® II 333 Atlanta/Seattle $669/739
Pentium® II 350 Seattle $869
Pentium® II 400 Seattle $1059

HARD DRIVE

2.1/2.5GB IDE $145/169
3.2/3.5GB IDE $169/179
4.3/6.4GB IDE $199/229
8.4GB IDE..... $339
2.1/4.3GB SCSI $229/399
6.4/9.0GB SCSI $499/769
100MB Zip DR (EPP/SCSI) $149/149
100MB Zip DR (IDE) $89
100MB Cartridge..... $13
1.0GB Jaz Drive $319
1.0GB Jaz Cartridge $119

FLOPPY DRIVES

TEAC 1.44..... $25
TEAC 1.2 New/Used $39/9

MONITORS

14" Non-Int..... $119
15" Non-Int..... $199
15" NEC XV Plus..... $259
17" Non-Int SVGA(.28/.26)... $259/299
17" Sony 200GS(1280x1024,.25) . $589
21" Non-Int SVGA 1600x1280 .28 . $999

KEYBOARDS

104 Enhanced /PS2..... $15
104 Keytronic/PS2 ..... $22
101 Maxswitch $25

VGA CARDS

MGP..... $15
1MB ISA/VLB/PCI $19/19/30
ATI all in one(tv/vcr)8MB AGP $279
Xpert@Play 8MB AGP $199
Diamond 3D 2/4M WRAM $59/69
Fire GL 1000 Pro 8MB AGP..... $199
Matrox Millennium 4/8MB $159/249
ATI AGP w/4MB Up to 8MB All-in One w/TV,VCR $249
1MB VGA RAM..... $15

MISC.

IDE/IO ISA $15
IDE/IO VLB $15
B/W Scanner..... $49
Color Scanner (Hand Held) $99
Flat-Bed Scanner (EPP/SCSI)..... $169
9-Pin Printer Alton 2000 ..... $69
HP670C $229

NETWORKING PRODUCTS

Ethernet 16-Bit Combo Card $28
3Com 3C509 Combo..... $59
3Com 3C905TX Combo..... $69
Ethernet 10BT Hub 8/16 Ports . $99/199
3Com 8/12/24 Ports..... $194/339/1099
Novell Netware 4.1 10/25 Users..... $699/899
10' Cable (TP)..... $19

NETWORKING SERVICES

- On-Site Service Available
- Windows 95, Windows NT, Windows for Workgroups, & Novell Specialist
- Network Design & Installation
- System Troubleshooting & Maintenance
- Special Discounts for Systems Purchased

46560 Fremont Blvd, Suite 408 • Fremont, CA 94538

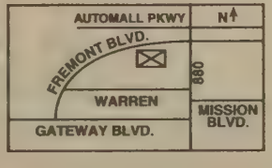
(510) 623-0866 (800) 588-0866

FAX (510) 623-0321

www.GOLDENMICRO.com • email: sales@goldenmicro.com

Hours M-F 9:00-5:30 Sat 10-3

Ad reflects cash discount. • Prices subject to change without notice. • Not responsible for typographical errors. • Pentium® is a registered trademark of Intel Corp.



GOLDEN MICRO COMPUTERS Since 1991

how audit trails are used. While a few packages, such as Solomon, were well regarded in the audit trail department, the report concludes that most were "disappointing."

Report Capabilities

The end product of accounting software is accounting reports, including financial statements. The three basic financial statements are the income statement, balance sheet, and statement of cash flows (reporting sources and uses of money). The proper form of the cash flow statement is dictated by official accounting pronouncements.

Among the new generation of Windows 95/NT accounting packages, the following produce cash flow statements: Great Plains Dynamics, MAS 90, Progression, SBT Pro, Traverse, and Visual Accounting. However, the report complains that none comply fully with standard accounting practices.

For example, all the developers except Visual Accounting indicated that funds coming from fixed asset dispositions were netted against money spent to acquire new assets—a clearly improper practice.

When the authors asked vendors "to show how their products produced the actual cash flow with the disposition of a fixed asset at a gain or loss, none could."

Of the packages considered, AccPac, Impact Encore, and Solomon generate no general ledger reports. Instead, the customer must develop the reports using low-level programming commands, or purchase a report writer from a third party vendor. Most users, of course, will buy the third party enhancement.

> The investigation of data security concludes, "Failure by this segment of the accounting software industry to include encryption is a significant shortcoming."

This seems to be a carryover from DOS days. When microcomputer accounting packages were being developed and marketed during the 1980s, they had limited capabilities, the market was relatively small, and printers and fonts were not standardized. Third party vendors naturally came along to fill the void between you and your daisy wheel. Eventually, since this niche was apparently of no interest to Bill Gates, they became entrenched.

The Courtney report observes that with Windows NT versions, most vendors are keeping the same report generating arrangements as their DOS programs. If you're already used to dealing with third-party reporting tools, this shouldn't present a serious disappointment. But it just doesn't seem right to have to purchase software for routine financial reports from a third party, having already paid thousands for an elaborate accounting suite.

System Security

System security and effective internal controls are obvious business necessities. Yet, the study points out considerable disparities in the effectiveness of the programs' security features. The study analyzes access controls, data security, and processing controls.

continued on page 190

Control Multiple PCs With One Keyboard Mouse and Monitor!

EDIMAX'S CPU SWITCHES

- Save money on redundant peripherals
- Save precious space by eliminating extra keyboards, monitors & mice
- Control 2, 4 or 6 PCs
- Uses standard cables
- Supports AT or PS/2
- Supports VGA, SVGA & XVGA
- Control by push-button, keyboard, hot keys, or auto scan
- Truly plug-and-play
- Intelligent keyboard & mouse emulation to ensure successful PC boot up

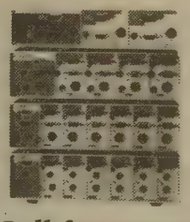
EDIMAX

1-800-652-6776

Tel: 408-496-1105

Fax: 408-980-1530

http://www.edimax.com

Ordering Information	Item #	Description	List(MSRP)
	CAS221	2-Port PS/2 & AT	$159
	CAS421	4-Port PS/2 & AT	$239
	CAS601	6-Port AT	$305
	CAS611	6-Port PS/2	$305
	6-Foot Cable Kit		$20
	10-Foot Cable Kit		$30

Call for special corporate and reseller discount program!

Does Your Company Have Technical Job Openings?

Target Qualified Professionals with MicroTimes.

Our readership sets us apart!

- **68%** *hold bachelor's degrees or higher*
- **50%** *have over 10 years computer experience*
- **48%** *are managers, engineers, or programmers*

MICROTIMES™
CLASSIFIEDS

For info call Larry Nusbaum
Classifieds Account Executive
(510) 768-1200 • E-mail: larry.nusbaum@microtimes.com

Credit Card Purchases Not Accepted For CPU's

VISA MasterCard

AMT INTERNATIONAL

2030 FORTUNE DRIVE, SAN JOSE, CA 95131
TEL (408) 432-1790 FAX (408) 944-9801

Email: amt_int@hotmail.com

LOWEST PRICES SAME DAY SHIPPING

CREDIT CARD ACCEPTED WALK-IN CUSTOMERS ONLY

QUANTITY PRICING FOR DEALERS & VARS, PLEASE CALL!!

INTEL MICROPROCESSORS

- P-II Klamath 450 MHz ..... CALL
- P-II Klamath 400 MHz
- P-II Klamath 350 MHz
- P-II Klamath 333 MHz
- P-II Klamath 300 MHz
- P-II Klamath 266 MHz
- P-II Klamath 233 MHz
- Pentium® Pro 200 w/512K Cache
- Pentium® Pro 200 w/256K Cache
- Pentium® Pro 180 MHz w/256K Cache
- Pentium® Pro 150 MHz w/256K Cache ..... CALL
- Pentium® 233 MMX
- Pentium® 200 MMX
- Pentium® 200 MHz
- Pentium® 180 MHz
- Pentium® 166 MMX
- Pentium® 166 MHz
- Pentium® 150 MHz
- Pentium® 133 MHz
- Pentium® 100/120 MHz ..... CALL
- Pentium® 60/75/90 MHz
- 486DX4-100 MHz
- 80486DX2-66 MHz

IBM CPU CHIPS

- 686-200+MHz ..... CALL
- 686-133MHz (+166)
- 686-120MHz (+150)
- 686-110MHz

A.M.D. CPU CHIPS

- K-6 300 MHz(Pent Comp) ..... CALL
- K-6 266 MHz(Pent Comp)
- K-6 233 MHz(Pent Comp)
- K-6 200 MHz(Pent Comp)
- K-6 166 MHz(Pent Comp)
- K-5 200/233 MHz(Pent Comp)
- K-5 166 MHz(Pent Comp)
- K-5 166 MHz(Pent Comp)
- K-5 133 MHz(Pent Comp)
- K-5 120 MHz(Pent Comp)
- K100 MHz(Pent Comp)
- K90 MHz(Pent Comp)

CYRIX CPU CHIPS

- MMX 233 MHz ..... CALL
- MMX 200 MHz
- MMX 166 MHz
- 686-150 MHz (+200)
- 686-133 MHz (+166)
- 686-120 MHz
- 686-110 MHz
- 686-100 MHz
- CX 486DX2-66 MHz 5V
- 586-100/120 MHz
- CX 486DX2-80 MHz 5V
- CX 486DX2-80 3V

MEMORY UPGRADES - DUE TO THE RAPIDLY CHANGING PRICES CALL FOR THE LATEST PRICES! HARD DRIVES AVAILABLE FOR CHEAPEST PRICES

SIMMS

30 PIN AVAILABLE
CALL FOR LOWEST PRICES

1x3-70	1x9-80
1x3-60	4x3-70
1x3-80	4x9-60
1x9-70	4x9-60
1x9-60	4x9-80

72 PIN NON-PARITY

1x32	4 MB
2x32	8 MB
4x32	16 MB
8x32	32 MB

72 PIN WITH PARITY

1x36	4 MB
2x36	8 MB
4x36	16 MB
8x36	32 MB
16x36	36 MB

72 PIN EDOs

1x32	4 MB
2x32	8 MB
4x32	16 MB
8x32	32 MB
16x32	32 MB

DIMMs

8 MB 16 MB 32 MB 64MB 128MB
512K Oblique 256K
All Tyes Of Dimms Available
Biplane Burst Available

Call For Best Prices

DRAMS

DRAMS

256x1-80	$2
256x1-100	2
256x1-120	2
256x4-60/70/80	3.99
64x4-80/100	4
1x4-80 DIPP	35
1MBx1-70	5.99
1MBx1-80/60	5.99
SOJ	19

ZIPPS

64x4-10/12 Page, 18pin	$4.50
256x4-80/70 Page, 20pin	4.50
256x4 Video Page 28pin TC524256Z-70	7
256x4 Video 28pin TC524256Z-60	7.50
1x4-80/70 Page 20pin ZIPP	20
1x4-80/70 Page 20pin DIPP	22

CACHE MEMORY

32Kx8-20	$4.50
32Kx8-15/12	5
64x4-20	5
64x4-15	3.50
64x8-15/20	2.75
8Kx8-20	2
8Kx8-15	2
16Kx4-20	2.50
16Kx4-15	2.50
64x1-20	4.75
64x1-15	5
128x8-20	19
128x8-25	16

CALL FOR LATEST PRICES

MATH CO's

INTEL/CYRIX/ULSI

287-10	$29
8087-1/2/3	84/67/54
287XL Intel Tube	44
387SL Intel Tube	44
387SX-26/20/33	44
387SX-25 Cyrix	35
387SX-33 ULSI	29
387DX-20 Intel Tube	31
387DX-25 Intel Tube	30
387DX-33 Intel Tube	40
387DX-40 Cyrix/IIT	34
4167-25/33 Weitek	195/375

CALL FOR PRICING ON IIT, ULSI & WEITEK

CALL FOR LATEST PRICES

LASER PRINTER MEMORY UPGRADES

IBM LASER
EPSON LASER
HP LASER
PANASONIC LASER
OKI LASER
QMS LASER
SHARP LASER
PACKARD BELL
NEC
FACIT
FUJI
TEC
BROTHER
STAR
LEXMARK
TEKTRONIC
KYOCERA
AND ALL OTHERS

Call for SUN SPARC STATIONS, TEXAS INSTRUMENTS, ZENITH MEMORY & PCMCIA CARDS PRICING & INFO!

MEMORY BOARDS

- RAMpAT 16 Bit..... $85 • RAMpAT Plus..... $125
- SIMMply RAM for PS/1 16 Bit..... 149
- SIMMply RAM..... 159

TEAC FLOPPY DRIVES

1.44 MB	$39
1.2 MB	49
Dual Floppy 1.2/1.44	98
Heat Sink w/Fan For 486's/Pentium	10/18

MEMORY UPGRADES FOR DESKTOPS & LAPTOPS

Acer · Apple · AST COMPUTER · AT&T · Canon · COMPAQ · DEC · CTX Making Technology Affordable · DELL · EPSON · EVEREX EVER for EXcellence® · FUJITSU · HEWLETT PACKARD · IBM® · NCR · NEC · Packard Bell™ · Panasonic Office Automation · SHARP® · SILICON GRAPHICS · sun microsystems · TEXAS INSTRUMENTS · TOSHIBA · Twinhead · ZENITH

Email: amt_int@hotmail.com

TERMS AND CONDITIONS

1. Gov't, University and Qualified Firms PO'S Welcome
2. U.S. and International Shipping VIA UPS, DHL and Federal Express
3. All Sales Must Include Sales Tax
4. All Sales Must Be C.O.D. Cashier/Certified Checks (Pentium® is a registered trademark of Intel)
5. There Is a 15% Restocking Charge For All Refused Merchandise
6. Prices Subject To Change W/O Notice, Not Responsible For Typo's
7. Call For Latest Prices
8. 30 Day Warranty on 486 CPU's Call For Pentium Warranty

HOURS: MON-FRI 9am - 5pm

CALL FOR UPGRADING OF PRINTERS & OTHER SYSTEMS
ALL MODELS/ALL MAKES

MICRO MARKETPLACE

Credit Card Purchases Not Accepted For CPU's

VISA MasterCard

AMT INTERNATIONAL

2030 FORTUNE DRIVE, SAN JOSE, CA 95131
TEL (408) 432-1790 FAX (408) 944-9801

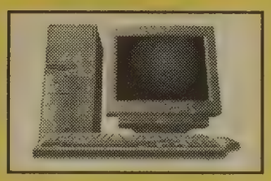
Email: amt_int@hotmail.com

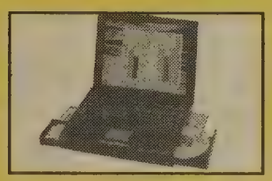
LOWEST PRICES SAME DAY SHIPPING

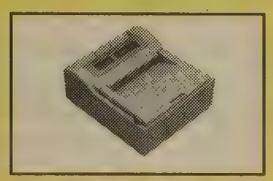
CREDIT CARD ACCEPTED WALK-IN CUSTOMERS ONLY

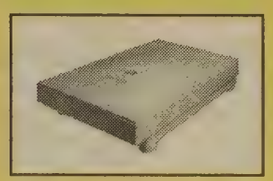
CUSTOM CONFIGURED SYSTEMS BUILT TO YOUR NEEDS...PLEASE CALL

SERVERS


PCs


NOTEBOOKS


PRINTERS


SCANNERS

INTRODUCING NEW ITEM!!

Digicom 56K Fax Modem $69
Gyropoint Pro II
(ultimate cordless mouse) $109
Thunder1000 ethernet switch $625
Diamond Sonic Impact PCI $39
Diamond Supramax 56K PCI $63

HARD DRIVES

WESTERN DIGITAL
11MS 2.1GB $135
11MS 2.5GB $137
11MS 3.2GB $147
10MS 4.3GB $163
10MS 5.1GB $193
10MS 6.4GB $210

MAXTOR
ULTRA 4.3GB $147
ULTRA 6.4GB $195
ULTRA 8.4GB $259
ULTRA 11GB $349

QUANTUM
ULTRA 2.1GB $145
ULTRA 3.2GB $149
ULTRA 4.3GB $169
ULTRA 6.4GB $193
2.1GB SCSI DMA $205
3.2GB UL SCSI $229
4.3GB UL SCSI $259
6.4GB UL SCSI $329

SEAGATE
ULTRA 3.2GB $145
4.3GB $159

SAMSUNG
11MS 2.1GB $129
ULTRA 3.2GB $137
ULTRA 4.3GB $149

FUJITSU
UL 3.2GB $146
UL 4.3GB $162
UL 5.2GB $195
UL 6.4GB $209

NOTEBOOK HARD DRIVES . . . . . $CALL

SCSI CONTROLLERS

ADAPTEC 2940AU PCI $149
ADAPTEC 2940UW ULTRA $185
DIAMOND Fireport 40 . . . . . $89

ZIP & TAPE BACKUPS

3.2GB INTw/CART $169
8GB INT w/CART $355
5GB INT w/CART $210
NEC 100M IDE INT
w/CART & 2yr warranty $87
Iomega 100mb pri, int, SCSI w/crt $99
Iomega 100mb ATAPI, int w/crt $95
Cartridge for zip drive $17
Iomega 1GB Internal SCSI $272

VGA CARDS

DIAMOND
Pro 2000 w/2MB upgradeable/4mb fixed $55/59
Steal 3D 4000 w/4MB Fixed AGP $59
Monster 3D 4MB DRAM OEM/Retail $109/145
Monster 3D II 8MB BULK/12MB BULK $209/229
Stealth II S220 w/4MB SGRAM $89
Fire GL Pro 1000 SGRAM PCI OEM 4MB/8MB. $122/143
Viper V330 4MB OEM PCI/AGP $89/92

MATROX
Millenium II 4MB UPGRADABLE PCI/AGP OEM . . $119
Millenium II 4MB UPGRADABLE PCI retail $159
Millenium II 8MB UPGRADABLE OEM PCI $169
Millenium II 8MB UPGRADABLE Retail PCI $209
Mystique 220 3D 4MB UPGRADABLE OEM/retail $69/109
Mystique Studio $289
M3D 4MB SDRAM Retail $79
Upgrade Module Mystique 220 2MB/4MB $48/63
Upgrade Module for Mill-II 4MB/8MB/12MB $89/159/229
Rainbow runner for Mystique 220/For Mil.II . . $169/209
Productiva G100 4MB/8MB AGP $79/90

ATI Technology
3D Charger 2MB EDO/4MB $49/59
3D Xpression 2MB EDO fixed $55
3D Xpression SGRAM PC2TV 2MB UPG/4MB fixed $69/75
3D Proturbo SGRAM PC2TV Upgable
OEM 4MB/8MB $79/115
Xpert@work OEM 4MB PCI/AGP $82
Xpert@work OEM 8MB PCI/AGP $106
Xpert@play OEM 4MB PCI/AGP $99
Xpert@play OEM 8MB PCI/AGP $119
All-in-wonder 4MB tv/video/graphic OEM PCI $129
All-in-wonder PRO 4MB UPG. PCI/AGP $205/219
All-in-wonder PRO 8MB UPG. OEM/retail $185/199
4MB SGRAM Upgrade for all-in-wonder PRO $42

NUMBER NINE
Revolution 4MB WRAM PCI OEM/retail $119/125
Revolution 4MB WRAM AGP OEM/retail $219/225
Revolution 8MB WRAM PCI OEM/retail $185/199
Revolution 8MB WRAM AGP OEM $165
Reality 334 4MB SGRAM AGP $79

S3 VIRGE CHIPSET (CARDEX/COLOR EXPERT)
S3 Virge DX 2MB Cardex/color expert $54/45
S3 Virge/GX2 4MB AGP retail upgradable cardex. . . $69

INTEL 740 CHIPSET
8MB SDRAM AGP (cardex/dcs) $89/85
NVIDIA RIVA 128 CHIPSET
Illusion 128 4MB SGRAM AGP $85

NETWORK CARD & HUBS

3COM Fast etherlink PCI
(3C905-TX,10/100Base-T) $75
3COM Etherlink ISA Combo
(3C509 coax/10Base-T) $69
3COM Etherlink ISA (3C509 10Base-T only) . . $50
3COM Etherlink PCI (3C900-TPO)/3C900COM $59/85
3COM Hub 3C16405 12port superstack $325
3COM Hub 3C16722 8port 10/100 Base $345
3COM Hub 3C16610 12port 10/100
Base Superstack II $509
Intel Pro 100 Plus PCI 8460 OEM $55
Makes sense fast ethernet 10/100 . . . . . $29
Thunder 1000 (12x10Mmps, 2x100Mbps)
10/100 Fast ethernet $629
Others . . . . . $CALL

SCANNERS

3D Flatbed 300x600dp $115
Avision AV260 / AV630 . . . . . $109/175
HP & UMAX . . . . . $CALL
Others . . . . . $CALL

DVD

Toshiba XM 1002 DVD kit $229
Creative Labs PC-DVD Encore Dxr2 . . . $275

MONITORS

MAG INNOV. 0.28dp 15" $229
MAG INNOV 0.26dp 17" $399
SONY 15" CDP-100ES $315
SONY 17" CDP-200ES/200GS $535/639
SONY 17" CPD-200PS $765
SONY 19" GDM-400PS $935
NEC 15" A500 0.28dp $279
NEC 17" A700 0.28dp $475
NEC 17" E700 0.25dp $619
ADI Microscan 19"/21" .26dp $569
ADI Microscan 15"/17" .27dp $215/335
DECA View 0.28dp 17" $330
Others . . . . . $CALL

MICROSOFT DSP PRODUCTS

MS Dos Version 6.22 5pack . . . . . $CALL
DSP WIN95 SR2 CD 5pack . . . . . $CALL
Natural keybd 5pack . . . . . $CALL
PS2 Mouse ver2.1A 10pack . . . . . $CALL
SER mouse ver2.1A 10pack . . . . . $CALL
Intellimouse PS2 10pack . . . . . $CALL
Intellimouse serial 10pack . . . . . $CALL
MS Office 97 sm bus ed 3pack . . . . . $CALL
DSP WIN95 SR2 Plus 5pack . . . . . $CALL
DSP WINNT Workstat 3pack . . . . . $CALL
MS home essen. 97 3pack . . . . . $CALL

CD RECORDERS

Panasonic CW7502,
4x(write)/8x(read) w/scsi card . . . . $CALL
TEAC R555,
4x(write)/12(read) recorder SCSI. . $CALL
MITSUMI CR/2800TE,
2x(write)/8x(read) IDE $275
YAMAHA 4x/2x/6x Rewritable
4001 IDE/4260 SCSI . . . . . $CALL
HP 72001 2x/6xIDE Rewritable $399
PHILIPS CDD3610,2x/6xIDE Rewritable $349

FAX MODEMS

DIAMOND
Supraexpress 33.6 w/voice . . . . . $CALL
Supermax 56k PCI INT w/voice oem $69
Supra internal w/voice, oem 56k/56k
w/speakerphn . . . . . $CALL
Supraexpress 56k v.90 INT
w/voice PHN r.pkg $99

US ROBOTICS
Sportster 1171 33.6 int w/voice, oem.ret . . . $CALL
Sportster 840 33.6 int w/o voice oem . . . . . $CALL
Sportster 839 33.6 ext. w/o voice ret 110v . . $CALL
Sportster 56k int w/
voice bulk 1785/1749 . . . . . $CALL/$92
Sportster 1787 56k int w/o voice bulk $79
Sportster 56k ext 1784w/v 1786 w/ov 110v . . . $177
V.90 5688 56k external w/o voice 110v retail . . $167

JATON
33.6 w/v Cirrus Logic retail $42
56k w/v Rockwell ret
(ear&mic)/no ear&mic $CALL/65
56k w/v Cirrus logic ret
(ear&mic) / no ear&mic $85/65

PRAGMATIC
Cirrus Logic chipset int.
w/voice retail 33.6/56k $44/65
Others . . . . . $CALL

FOR THE LATEST PRICES OF CD-ROM AND MOTHERBOARDS...PLEASE CALL...
ALL MAKES AND MODELS AVAILABLE

SPEAKERS, FLOPPY DRIVES & SOUND CARDS AVAILABLE
$CALL FOR PRICES

YOUR ONE STOP

Systems & Motherboards

PENTIUM® II
400/350
Intel M/B (With Sound) 440BX Chipset
$1298/$1038
MOTHERBOARD/1CPU
$1138/$878

PENTIUM® II
400/350
Microstar M/B 440BX Chipset
$1238/$978
MOTHERBOARD/CPU
$1078/$808

PENTIUM® II
333/300/266/233
Intel Dual CPU M/B (with 1 CPU)
$1198/$1078/$938/$878
MOTHERBOARD/1CPU
$1058/$938/$798/$738

PENTIUM® II
333/300/266/233
Intel Motherboard (No Sound Card) 440LX Chipset
$858/$738/$598/$538
MOTHERBOARD/CPU
$708/$588/$448/$388

PENTIUM® II
333/300/266/233
Microstar Dual CPU Motherboard (with 1 CPU) 440LX
$878/$758/$618/$558
MOTHERBOARD/CPU
$738/$608/$468/$408

PENTIUM® II
333/300/266/233
Microstar Motherboard 440LX Chipset
$818/$698/$558/$498
MOTHERBOARD/CPU
$678/$548/$408/$348

PENTIUM®
133/166/200MMX/233MMX
PCI
INTEL ANCHORAGE M/B (OEM)
$328/$338/$368/$408
MOTHERBOARD/CPU
$178/$198/$228/$258

PENTIUM®
133/166/200MMX/233MMX
PCI
512K PIPED BURST CACHE
$278/$288/$318/$358
MOTHERBOARD/CPU
$148/$158/$188/$228

AMD K6-200/233/266
PCI
TRITON CHIPSET
512K PIPED BURST CACHE
$288/$298/$328
MOTHERBOARD/CPU
$158/$168/$198

BASIC SYSTEM CONFIGURATION

- **32MB RAM 440BX, 440LX M/B**
- **8MB RAM Expandable**
- **IDE 2FD/4HD Controller**
- **101-Key Keytronic Keyboard**
- **Teac 1.44MB Floppy Drive**
- **1 Parallel, 2 Serial Ports**
- **Mini Tower Case (Pentium® Pro, Pentium® II, Anchorage & Lonetree: Uses ATX Mid Tower Case)**
- **Power Supply**
- **One Year Warranty**

LIFETIME LABOR WARRANTY ON SYSTEM!

MULTIMEDIA COMPLETE SYSTEM w/ 16X SPEED CD ROM

PACKAGE INCLUDES:
- Motherboard w/512K Cache
- 32 MB RAM
- 3.2GB Hard Drive (Fujitsu)
- Mini Tower Case
- 16X IDE CD-ROM (Funai)
- Sound Blaster 16 OEM Soundcard
- Teac 1.44MB Floppy Drive
- 14" SVGA 1024x768 .28mm NI Color Monitor
- SVGA Card w/1MB (Trident Chipset)
- IDE Enhanced Controller (2S/1P/1G)
- 101 Keyboard
- 25W Speakers
- Microsoft Compatible Mouse
- Windows 95 Software

CALL FOR OTHER CONFIGURATIONS & OPTIONS

K6 200MHz (AMD) (PCI) $778
PENTIUM® 133MHz (PCI) $768
PENTIUM® 200MHz MMX (PCI) $798
PENTIUM® II 233MHz $958

Peripherals

VIDEO CARDS

ATI 3D Pro 8MB (OEM)	$129
ATI 3D Pro 4MB OEM	99
ATi Expert@Play AGP 4MB/8MB	109/135
ATi Expert@Work AGP 4MB/8MB	89/119
Diamond Stealth 64 2MB VRAM PCI	85
2MB Upgrade for Above	59
Diamond 3D Monster 4MB PCI/OEM	149
Diamond 3D Monster 2 (OEM)	219
Diamond 3D 2MB/4MB DRAM	59/79
Diamond 3D 4000 4MB AGP (OEM)	69
Diamond Viper V330 4MB AGP/PCI (OEM)	99/99
Diamond GL1000	
4MB PCI/8MB	129/165
4MB AGP/8MB AGP	149/185
Diamond Stealth II 4MB (OEM)	95
Intel i740 4MB AGP	129
Matrox Millennium II 1600x1200	
4/8MB WRAM PCI (OEM)	135/189
Matrox G-100 8GB AGP/4MB AGP	95/185
Matrox Mystique 220 2/4MB (Retail)	109/139
Matrox Mystique Rainbow Runner	199
Matrox Mystique 2 MB Upgrade	59
Matrox M3D (3D Upgrade)	99
Achme 4MB AGP	59
Trident PCI 1MB (64 Bit MPEG)	39
Trident Chipset 4MB AGP/AGP+TV	55/65
VGA (1024x768) 1MB ISA	45

DRIVE CONTROLLERS

IDE Controller	$17
KW557 IDE ISA 2S/1P	39
Adaptec 2940 ULTRA SCSI PCI (OEM)	169
Adaptec 2940UW Ultra Wide SCSI (OEM)	199
Adaptec 3940 PCI Multi-Channel (OEM)	399
Diamond Fireport Ultra Wide SCSI	119
Promise EIDE 2300 Plus 4HD/2S (16550)/1P	49
Promise EIDE MAX IDE	32

I/O CARDS

ATI-I/O (2S/1P/1G)	$15
Printer Card	12

KEYBOARDS

Microsoft Natural Keyboard	$49
Keytronic 101 Win 95/Mitsumi 104 Keyboard	29/19

MONITORS

IIYAMA (IDEK)	
MF8515G 15" .28	$249
MF8617E 17" .26	495
S901GT 19"	765
MF9017E 17" .25	579
A-102GT 21"	1165
S-102GT 21" 1800X1440	1165
NANAO	
FX-C5 17"/FX-C6 17" .27, 1280X1024	665/815
TX-C7/TX-D7S 17" .25, 1600X1200	879/1645
FX-E8 21" .26, 1600X1200	2195
VIEWSONIC	
P810 21" 1600x1280 .26	1159
P815 21" 1800x1440	1295
G800 20" 1600x1280 .28NI	995
P775 17" 1600x1200 .25	559
G771 17" 1280x1024 .27NI	445
15GA 15" 1280x1024 NI (Speaker built-in)	345
P655 15"	275
E641 14" Non-Int	185
9" Mono VGA	119
15" MAXTECH (2 Yr. Warr.)	195
RELYSIS	
14" 1024x768 .28	139
15" 1280x1024/17" .26	179/299
NEC Monitors	CALL
PANASONIC S70 (17") 1024x768 .28	379
SONY	
CPD 100ES/CPD 200ES	299/559
CPD 20SE II	Sale 1159
NOKIA	
447ZA (17") 1024x1024 .28 (w/Spk)	569
447X	689
445Xi (21") 1600x1280	1425

MODEMS & FAX/MODEMS

Megahertz PCMCIA Fax/Modem (33.6/14.4)	$189
US ROBOTICS SPORTSTER	
33.6 Fax Modem Int w/Speaker Phone/ Voice Mail (Item #1171) Reg./OEM	129/95
33.6 Fax/Modem Int/Ext	109/115
PCMCIA 33.6 Fax/Modem/56K	179/215
33.6 Fax/Modem OEM	85
56K Fax/Modem Int./Ext.	149/165
56K Fax/Modem w/Voice Int./Ext.	169/185
56K Fax/Modem w/Voice (OEM)	125
56K Fax/Modem Internal (OEM)	109
V.90 56K Fax/Mod (OEM)/Ext	135/175
V.90 56K Fax/Mod w/Voice Int	145
SUPRAEXPRESS	
33.6 Fax/Modem w/ Voice Mail Int.	65
56K Fax/Modem	85
PCI 56K Fax/Mod	79
MODULATOR 33.6 Fax/Modem	49
JATON 56K Fax/Modem/Voice	79

TAPE BACKUP

HEWLETT PACKARD	
C1534 4mm DAT 2GB SCSI INT	$549
C1536 4mm DAT 2-4GB SCSI INT	595
C1599 4mm DAT 8GB SCSI INT	695
5.25" Mounting Frame	27
COLORADO	
3.2GB T3000 (w/1 Tape)	179
4GB T4000 SCSI TRAVAN INT	375
Travan (800MB)/Travan 3200 Tape	27.95/29
IOMEGA ZIP Drive 100MB SCSI/Parallel	149/135
ZIP Drive 100MB IDE/ZIP+	89/189
Ditto 3200MB Int/Ext	235/259
JAZ Int/Ext	265/279
JAZ 2GB Int/Ext	509/595
JAZ Disk/Zip Disk	85/12.50

DISK DRIVES

All HDs Come with Mounting Bracket

TEAC 1.2MB	
3.5" (1.44MB) w/Frame	$43
	31
MAXTOR	
4.3/8GB UDMA IDE	165/289
11.5GB	399
FUJITSU	
3.2GB IDE Ultra DMA	155
4.3/6.4GB IDE Ultra DMA IDE	169/219
WESTERN DIGITAL	
WDAC 32500 2.5GB IDE	149
WDAC 33200 Ultra DMA (3GB))	159
WDAC 34300 Ultra DMA (4GB)	179
WDAC 36400 Ultra DMA (6GB))	229
SEAGATE, QUANTUM LARGER CAPACITY DRIVES	CALL
QUANTUM	
2/6GB SCSI	219/365
3GB Ultra DMA IDE	159

NETWORK CARDS

Ethernet Combo PCI	$25
Ethernet Combo 16 Bit (Celan) Plug N Play	29
Ethernet 10/100MB PCI	35
3 COM	
3C509 TP/OEM/Reg	49/118
3C509 Combo OEM/Reg	69/129
3C589TP (PCMCIA)/Combo	139/165
3C900 Combo PCI OEM/Reg	85/135
3C900TP OEM/REG	85/115
3C575TX 10/100 PCMCIA Card	155
3C905TX (100MB) PCI TP/OEM/Single	75/109
Intel EtherExpress Pro (100MB) PILA 8460	
Single/5 Pack	59/425
Intel EtherExpress Pro 8220TP Single/5 Pack	99/395
5/8/16 Port Hub	39/59/99

U.P.S.

650 VA/1400VA	$155/295

COMPUTER CASE

17" Baby AT Case W/200W P/S	$69
Vertical Case 250W P/S	99
Medium Vertical Case 250W P/S	85
Mini Vertical Case 250W P/S (UL P/S)	59
Mini-Mid Case/ATX Desktop Case	45/89
ATX Medium/Full Tower Case	85/105

POINTING DEVICES

PC Joystick	$16
Logitech 2-button PS/2 Mouse	15
Logitech Cordless Mouse	55
Logitech Bus Mouseman	64
Logitech Mouseman Combo/OEM	49/24
Logitech Trackman Marble/OEM	85/43
Mouse (Serial 9 Pin)	9
Mircrosoft PS2 Mouse (OEM)	29
Microsoft Mouse Bus/Ser (400dpi)	85/75
Microsoft Mouse Grey Ser (OEM)	29
Mircrosoft IntelliMouse/OEM	69/35

MISCELLANEOUS

Windows 95 Release 2, CD/Disk w/System Purchase Only	$99/109
Windows For Workgroups (w/System purchase only)	56
McAfee Virus Scan Deluxe	66
MS DOS 6.2 (w/System only)	45
6/10/15/25' printer cable	3.50/6/10/20
Keyboard Extension cable	5
Monitor Extension cable	5
Power Center	18
Printer switch box (AB/ABCD)	9.50/19
Printer switch box auto (AB/ABCD)	18/35
Power supply 250W	48
Memory Chips (DIPS/DIMMS/SIMMS)	CALL
Power Strip	7

PRINTERS

HP PRINTERS	$CALL

SCANNERS

IMAGER 730 30-Bit Parallel Port	$119

AROMA Computer Systems
Always Ready to Offer More Assistance

YOUR ONE STOP MULTIMEDIA SOURCE

Peripherals

- PANASONIC 24X IDE CD-ROM INTERNAL $69
- TEAC 16X SCSI CD-ROM. 89
- FUNAI 16X IDE CD-ROM INTERNAL 59
- TOSHIBA 32X SCSI CD-ROM INT 105
- TOSHIBA IDE CD-ROM INTERNAL 24X/32X . . . 69/79
- TEAC IDE CD-ROM INTERNAL 24X/32X. 69/79
- RICOH MP6200-S 6X2 CD-RECORDER INTERNAL . 539
- MICROPHONE. 9
- DIAMOND IDE DVD 285
- ART MEDIA CD-WRITER INTERNAL. $349

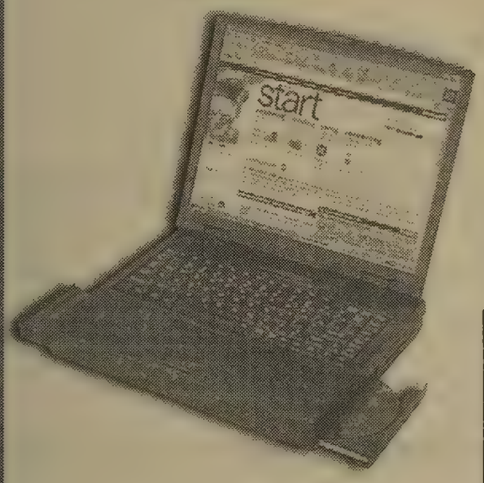
Multimedia Products

- SOUND BLASTER AWE 64 Gold $145
- SOUND BLASTER AWE 64 OEM 75
- SOUND BLASTER PRO 16 BASIC IDE (OEM) 45
- YAMAHA CHIPSET 16-Bit Sound Card 25
- SOUND CARD (PCI) BUS 39
- SPEAKERS
  4W/25W/3D 420W/3D 500W 7.99/30/49/69
- ALTEC LANSING 400 SPEAKERS W/SUBWOOFER 159
- YAMAHA YST-M15 SPEAKERS 69
- WRITABLE CD DISKETTE (KODAK) . . . . . .3.59 EA.
- WRITABLE CD DISKETTE 1.99

Aroma Highest Quality Pentium Notebooks

NEW!

MMX Technology Notebook



UPGRADES:

- PCMCIA 33.6 Fax/Modem. . . $69
- PCMCIA 56K Fax/Modem . . $109
- Upgrade to 32MB . . . . . +65
- Upgrade to 48MB . . . . . +105
- Upgrade to 80MB . . . . . +195
- 2.0GB . . . . . +75
- 3.0GB . . . . . +125
- 4.0GB (for Model 758). . +295
- 5.0GB (for Model 758). . +509
- Removable HDD Kit . . . . . +29
- Lithium Ion Battery. . . . . +175

STANDARD FEATURES:

- Supports Intel Pentium® MMX Technology
- Built-in 16X CD-ROM
- 1.44MB Floppy Drive
- 1.1GB Hard Drive
- 2MB Video Display
- 4MB Video Display (Model 758/759)
- Lithium-Ion Battery
- Removable Hard Drive
- 800x600 Resolution
- 16MB EDO RAM On-Board (Exp to 80MB)/ (Exp to 128MB for Model 758)
- Two PCMCIA Type II or One Type III Slots
- Touchpad Pointer
- 1-Year On-Site Service

DISPLAY/SPEED	133MHz	166MMX	200MMX	233MMX
12.1" ACTIVE MATRIX	$1488	1538	1538	N/A
12.1" DUAL SCAN	$1308	1348	1348	N/A
Model 758				
12.1" ACTIVE MATRIX SVGA .20X CD-ROM USB Ports	$1778	1828	1828	1858
13.3" ACTIVE MATRIX XGA .20X CD-ROM USB Ports	$1408	1458	1458	1488
14.2" ACTIVE MATRIX XGA .20X CD-ROM USB Ports	$2338	2388	2388	2418
Model 759				
13.3" DUAL SCAN XGA .24X CD-ROM, 2GB HD	$2118	2168	2168	2198
14.2" ACTIVE MATRIX XGA .24X CD-ROM, 2GB HD	$2258	2298	2298	2338

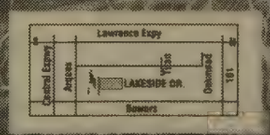
CD TITLES SPECIAL

New Reductions on Most CD Titles

PLEASE CHECK OUR CLEARANCE BOXES
CD TITLE BLOWOUT SALE FROM $3.50

Always Ready to Offer More Assistance

AROMA Computer Systems



470 LAKESIDE DR., Suite F
SUNNYVALE, CA 94086
Tel: (408) 736-4355
FAX: (408) 736-4356

MODESTO OFFICE
3430 Tully Rd., Ste. #21
Modesto, CA 95350
Tel: (209) 525-8080
FAX: (209) 525-8120

FRESNO OFFICE
3071 W. Shaw Ave. #101
Fresno, CA 97113
Tel: (209) 243-4250
FAX: (209) 243-4255

HOURS: M-F 9-7 Sat 10-4 EMAIL: sales@aromatech.com

Experience Makes the Difference!!

Our Happy Customers = 3-Com, National Semi-Conductor, NASA, Cypress, HP, Intel, Tandem, etc.

ECONOMY SYSTEM
- Intel Pentium® 60/100 CPU & M/B
- 16MB RAM
- 630MB Hard Drive
- IDE Ctrl w/2S/1P/1G
- 1.44MB Floppy Drive
- Mouse, 104 Keyboard
- Mini Tower Case w/250W
- SVGA Card 1MB

ONLY
$249/289

Option - 12X CD-ROM, Sound Card, Speaker.....$55

686 CYRIX MX-233/266
- 586 M/B w/512K
- 32MB EDO RAM
- 2.1GB Hard Drive
- 1.44 Floppy Drive
- Mini Tower Case
- SVGA Card 1MB
- 104 Keyboard, Mouse

$389/419

MMX 200/233
- 586 M/B w/512K
- 32MB EDO RAM
- 3.2GB Hard Drive
- 1.44MB Floppy Drive
- Mini Tower Case
- SVGA card 2MB
- 104 Keyboard, Mouse

AMD $409/419
Intel $439/469

PENTIUM® II 233/266/300/333
- Intel Pentium® II CPU + Fan
- Intel LX Chipset M/B
- 32MB SDRAM
- 4.3GB Ultra DMA HD
- 1.44MB Floppy Drive
- Intel 740 AGP w/8MB
- Mid Tower ATX Case

$639/689/769/919

PENTIUM® II 350/400
- Intel Pentium® II CPU+Fan
- ASUS BX Chipset M/B
- 64MB SDRAM
- 6.4GB Ultra DMA HD
- 1.44MB Floppy Drive
- Intel 740 AGP w/8MB
- Mid Tower ATX Case

$1169/1399

CPUs

INTEL

Pentium® II 300/266/233 $350/245/190
MMX 233/200/166 ....$131/100/96
Pentium® 166/100 .....$95/75
DX4-100.....$40
387SX-33.....$14

AMD

K6300/266/233 .....$145/105/79

CYRIX/IBM

686MX 266/233 .....$97/67

AMD MMX
- Pentium 512K M/B
- AMD K6- 233/266/300
- 32MB SDRAM
- 4.3GB Ultra DMA HD
- S3 Virge 3D 2MB
- Mitsumi 1.44MB FD
- Mini Tower Case
- 24X CD-ROM
- 16-Bit Sound Card
- 56K Modem w/Voice
- Win 95 Keyboard and Mouse
- Free Game & Mouse Pad

$559/589/629

INTEL MMX
- Pentium 512K M/B
- Intel MMX 200/233
- 32MB SDRAM
- 4.3GB Ultra DMA HD
- Diamond 3D 2000 Pro 2MB
- Mitsumi 1.44MB FD
- Mini Tower Case
- 24X CD-ROM
- 16-Bit Sound Card
- 56K Modem w/Voice
- Keytronics Win 95 Keyboard
- Logitech MouseMan
- Free Game & Mouse Pad

$609/639

DUAL PII NT SERVER
- ASUS Dual P2 M/B
- Intel PII 233/266/300/333 Single
- 64MB SDRAM
- 9.1GB UW HD
- Adaptec 2940 UW Controller
- S3 Virge 3D 2MB
- Mitsumi 1.44MB FD
- ATX Mid Tower Case
- 24X SCSI CD-ROM
- Keytronics Win 95 Keyboard
- Logitech MouseMan

$1499/1549/1609/1779

SIMM MEMORY (MAJOR BRAND)

30 pins

1M/4M $3/9

72 pins (EDO)

4/8MB.....$7/14
16/32MB .....~~$25~~ $35

128 pins (SDRAM)

16/32MB $25/36
64/128MB.....80/145

CACHE MEMORY

32Kx8(5V)/64Kx1.....$4/5
64Kx8/128Kx8(5V).....8/12

PC Repairs & Upgrades Welcome!!

GOVERNMENT, UNIVERSITY AND APPROVED CORPORATE P.Os WELCOME • 1-YEAR PARTS/ 3-YEAR LABOR/ LIFETIME TECH SUPPORT

MOTHERBOARDS
ASUS P2B w/PII 400.....$999
Intel Atlanta w/PII 333.....645
ASUS P2 L97 w/PII 300 465
Intel LX P2 w/PII 233.....285
Intel TX 512K.....72
TX Pro 512K.....62
VX Pro 512K 55

MULTIMEDIA
12X/24X CD-ROM IDE $40/50
24X/32X Toshiba 57/68
16-Bit Sound Card PnP 13
Sound Blaster 16/64.....30/58
Speakers 80/240W.....10/25

PCI VIDEO CARDS
Matrox Mystique 220 4MB.....$62
Diamond 3D 2000 Pro
2/4MB 46/50
S3 Virge 3D 2/4MB 36/40
Trident 1/2MB 19/25

HARD DRIVES
(3-Year Warranty)

FUJITSU

2.6/3.2GB $137/140

WESTERN DIGITAL

3.2/4.3GB.....145/168

QUANTUM

2.1/3.2GB.....139/155

(30-Day Warranty)

635/540/340MB ...~~$95~~ 89/79
270/240/210MB.....79/70/69
140/120/40MB 60/59/35

MONITORS
(3-Year Warranty)

9" TVS Mono $105
14" Leo .28.....120
15" Komodo .28 145
17" Komodo .28 .....~~299~~ 259
17" Impression .27 310
19" Decaview .26.....499

CONTROLLER CARDS
EIDE/IO VLB/ISA/PCI....$9/14/20
Diamond Fire Port u/uw SCSI..~~99~~ 83
Adaptec 3940 uw 399
Adaptec 2940U PCI 135

TEKRAM CACHE CONTROLLER
DC-600T ISA/IDE.....$79
DC-620B EISA/IDE 59
DC-680 VLB/IDE w/1MB.....79
DC-320 EISA/SCSI 59

CASES
Mini Tower Case w/250W.....$19
Med Tower Case w/250W 29
Full Tower Case w/200W.....48
ATX Mid Tower Case .....~~59~~ 49
Desktop w/250W.....33
Power Supply PS2/ATX 20/38

NETWORKING
NE2000 ISA/PCI PnP.....$12/14
3Com 3C905TX PCI 57
3Com 3C509-TPO/Combo 43/56
Intel BNC/AUI.....39
Intel 10/100 BaseT PCI .....~~49~~ 45
Hub 9/17 Port .....~~49~~ 39/79
Cables: Coaxial/Twisted Pair
Terminator, Connector.....Call

MODEMS
2496 Int/Ext. $13/23
14.4/28.8 .....20/25
33.6/56K w/Voice PCI.....37/52
56K US Robotics.....70
56K Diamond Supra w/Voice.....68
56K Diamond PCI v.90 61

MISCELLANEOUS
HD Removable Frame $17
Win 95 104 Keyboard Color 15
Keytronics 104 Keyboard 15
NEC 1.44 Floppy.....18
100MB Zip Drive Int.....85

MONTHLY SPECIALS
586 M/B & P-100.....~~$99~~ $89
586 M/B & P-60.....~~$69~~ $65
SyQuest 270MB SCSI HD.....179
Micropolis 540MB SCSI HD 95
Toshiba 2.5" 120MB/340MB HD ..65/99

LABOR RATES/SERVICES
System Checkup $20
Multimedia Kit Install.....30
Hard Drive Install.....20
Motherboard Install.....30
Power Supply Install.....30
Modem Install.....30
Software Install.....30/hr.
System Troubleshoot .....40/hr.

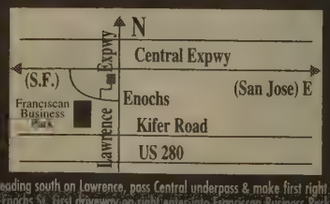
• CPU and memory-related products are not exchangeable or refundable • Not responsible for typos or technical errors • All prices reflect COD cash discount • Prices subject to change w/o notice

LYNX

STORE HOURS
MON-FRI 9AM-6PM
SAT 11AM-3PM
SINCE 1987

Fortune Net Micro Inc.

3054 Lawrence Expwy, Santa Clara, CA 95051
(408) 481-9288 FAX: (408) 481-0866
Find us in The Franciscan Business Park



Heading south on Lawrence, pass Central underpass & make first right on Enochs St. First driveway on right enter into Franciscan Business Park.

Your Computer Service Provider Since 1990

On-Site Service for Your Home or Business. We Offer You Custom System Configuration.
Complete Upgrade & Repair Center. Corp., Govt., School, & Special Orders Welcome!

Pentium® II Barebone

ATX Mediumtower 235 Watt P.S.
Intel 440LX Chipset Motherboard
32MB 168 Pin 10ns SDRAM
With 512KB CPU

233 MHz..... $399
266 MHz..... $469
300 MHz..... $569

Internet Service

Get On-Line with
MajorNet
ph 510-796-0603
Or ask our staff
for details

KIDSOFT®
Great Software for Kids of all Ages

Pentium® II Value-2000

- Intel 440LX Chipset Motherboard
- Intel Pentium® II-512KB MMX CPU
- ATX Chassis with 2nd Fan
- 32MB 168Pin 10ns SDRAM DIMM
- S3 Virge GX AGP 4MB
- 4.3GB Ultra DMA IDE
- 1.44MB Floppy Drive
- 24X CD-ROM Drive
- 3D Yamaha Sound Card
- US Robotics 56K Fax Modem
- QIC 8860 Speakers 120 Watt
- Win95 PS/2 Keyboard
- Logitech PS/2Mouse
- Windows 95 OSR2 CD
- Monitor Not Included

Pentium® II 266MHz $999
Pentium® II 300MHz $1089
Pentium® II 333MHz $1199

OFFICE SYSTEM

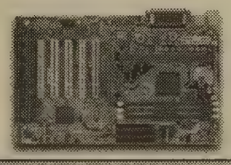
- Pentium® II Expert
- Intel 440BX Chipset Motherboard
- Intel Pentium(II-512KB MMX CPU
- ATX Chassis with 2nd Fan
- 64MB 168Pin 10ns SDRAM DIMM
- Intel 8MB i740 AGP Graphics Card
- 6.4GB Quantum Fireball SE Hard Drive
- 1.44MB Floppy Drive
- Toshiba 32X CD-ROM Drive
- Sound Blaster AWE 64 Value
- US Robotics 56K Fax Modem
- PS/2 Keyboard
- Logitech PS/2Mouse
- QIC 8880 Speakers 160 Watt
- Windows 95 OSR2 CD
- Monitor Not Included

Pentium® II 300MHz $1379
Pentium® II 333MHz $1499
Pentium® II 350MHz $1650
Pentium® II 350MHz $1899

ASUS 440BX w/100MHz Bus

- Intel 440BX AGP set w/100MHz Bus Motherboard
- 100MHz Bus Improves Processing Speed
- Handles up to 400MHz Processor

$169



Pentium® II Expert System

- MicroQuest Xpress
- TX-Pro II 512K Cache
- 2MB Video Graphics 32MB RAM
- 2.1GB Hard Drive
- 56K Fax Modem
- 24XIDE CD-ROM
- 16-Bit 3D Sound
- Win95 Keyboard
- Serial Mouse
- Minitower Case

Intel 166MMX $499
Intel 200MMX $555
AMD K6 PR233 ..... $555
Intel 233MMX $595

Motherboards

Abit BX6 440BX $159
Abit LX6 w/P-II 300 CPU $499
Asus P2L97 AGP $140
Asus P2L97D Dual $199
Asus TX97L 512K $109
Asus SP97 512K w/Video ..... $ 80
Intel SE 440BXPA $199
Intel AL 440LX $155
Intel N440BX $599
Intel R440LX $399
Soltek BX440 ..... $139
Soltek LX440 ..... $100
Soltek VP3/100MHZ AGP ..... $ 99
Soltek VP3 w/K6-233 CPU $188
Terkram 430TX 512K ..... $ 80
TX-Pro 512K ..... $ 59
TX-Pro 512K w/233 CPU 6x86 ..... $139
VIA 512K w/K6-233 CPU $188
Pentium-II 233 CPU $188
Pentium-II 266 CPU $248
Pentium-II 300 CPU $358
Pentium-II 333 CPU $499
Pentium-II 350/400 CPU ..... $Best
AMD K6-233 CPU ..... $ 89
AMD K6-266/300 CPU ..... $Call

Hard Drives & CD-ROM

Quantum SE 8.4GB IDE $259
Quantum SE 6.4GB IDE $199
Fujitsu 6.4GB IDE $199
Fujitsu 4.3GB IDE $165
Fujitsu 3.2GB IDE $149
Maxtor 4.3GB IDE $165
Seagate 2.1GB IDE $129
W.D. 6.4GB IDE $199
W.D. 4.3GB IDE $165
W.D. 3.2GB IDE $149
W.D. 2.5GB IDE $139
W.D. Enterprise 9.1GB $750
W.D. Enterprisw 4.3GB $449
IO Mega ZIP IDE int. ..... $ 99
IO Mega ZIP Scsi int. $109
IO Mega ZIP Plus ext. $149
Toshiba 32X SCSI ..... $ 99
Toshiba 32X IDE ..... $ 80
Toshiba 24X IDE ..... $ 70
US Drive 24X IDE ..... $ 55

Modem & Add on Cards

US Robotics 56K (Ext.) $159
US Robotics 56K (Voice) ..... $ 99
US Robotics 56K (OEM) ..... $ 79
3COM 3C509B TPO ISA ..... $ 59
3COM 3C905 TX10/100 ..... $ 69
3COM 3C900Combo ..... $ 89
Diamond Supra Modem56K ..... $ 79
Lucent 56K Modem (Voice) ..... $ 50
Modem Blaster 56K ..... $ 89
Sound Blaster 64 AWE ..... $ 79
Sound Blaster 16 PnP ..... $ 39
Yamaha 3D Sound Card ..... $ 20
PCI 32Bit 3D Sound ..... $ 45
ATI Xpert @ Play AGP 4MB ..... $ 99
Intel i740 AGP 8MB ..... $ 89
Matrox G100 AGP 8MB ..... $ 89
Diamond Stealth 4000 AGP 4MB ..... $ 69
Diamond Stealth 2000 PCI 4MB ..... $ 65
S3 Virge GX2 AGP 4MB ..... $ 59
S3 Trio64 V+ PCI 2MB ..... $ 35

Monitors & Misc.

17" Viewsonic GT775 .25 ..... $559
17" Viewsonic G773 .26 ..... $469
17" Viewsonic G771 .27 ..... $439
17" Viewsonic E771 .28 ..... $399
20" Viewsonic G800 .28 ..... $939
21" Viewsonic G810 .25 ..... $999
17" Sampo Af761 .25 ..... $450
17" Sampo Af771 .28 ..... $299
17" DigiView .27 ..... $350
15" DigiView .28 ..... $199
14" SVGA .28 ..... $139
Mini Tower Case 230W ..... $ 30
ATX Med Tower Case 235W ..... $ 69
ATX Full Tower Case 300W $110
QIC 8880 Speaker 160W ..... $ 25

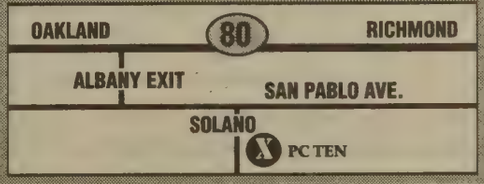
PCTEN INC.

PIEDMONT COMPUTER SINCE 1990

Not responsible for typographical errors. Prices subject to change without notice.

Main Office:
Oakland • Piedmont
4237 Piedmont Avenue
510-652-5268
Fax: 510-652-5380

Albany • Berkeley
1533 Solano Ave.
510-527-1388
Fax: 510-527-7006



Intel Pentium II 233~400 MHz 8.4GB 64MB 32XCD SB64 56K

*Intel Pentium II 233~400MHz w/512KBL2 Cache include Intel MMX Technology
*Intel SE440BX PentiumII MB w/AGP Port
*64MB SDRAM 10ns
*8.4GB UltraDMA/33 Hard Drive
*Intel Express 3D AGP 2X 4MB SGRAM Graphic
*17" SVGA Monitor 1280x1024
*Teac 1.44MB Floppy Drive
*Keytronic 104 Keyboard
*Microsoft mouse w/ pad
*32X EIDE Internal CDROM
*Creative Lab AWE 64 Sound Card
*Yamaha Yst-M7 Speaker
*U.S. Robotics Int. V.90 56K Fax/Data/Voice Modem
*ATX Medium Tower Case w/235WattsPS
*Microsoft Windows 95 w/Free Win98 upgrade #

DVD Upgrade Option:
*ATI AGP 4MB Video Card w/ Soft DVD Player,
2X DVD, 20X CD Rom Drive add $ 75

Ask for upgrade option for PC100 compliant memory

$ 1769 / 1829 / 1959 / 2099 / 2169 / 2449
233MHz / 266MHz / 300MHz / 333MHz / 350MHz / 400MHz

Pentium 200~233MHZ 4.3GB 32MB 24X 33.6

* Intel Pentium 200~233 MMX
* Intel or Asus or Abit 430TX Chipset w/512KB PB Cache ATX form format
* 32MB SDRAM Dimm 12ns
* UltraDMA/33 4.3GB EIDE Hard Drive
* 15" SVGA .28DP Flat Screen Monitor
* PCI Video w/2MB
* Teac 1.44MB Floppy Drive
* KeyTronic 104 Enhanced KB
* Logitech PS/2 Mouse w/ Pad
* Built in PCI EIDE Controller 4HD/2FD
* 2 Serials (16550 UART) & Parallel Port
* ATX Med Tower Case w/ 230 Watts
* 24X EIDE Internal CDROM & 16 bit Sound
* Shield computer power speaker
* 33.6 Internal Fax Modem
* Microsoft Windows 95 w/Free Win 98 upgrade #

Option:
*MS Office 97 Small Business Edition $209

$ 979 / 999
200MMX / 233MMX

AMD K6 233/266/300 MHZ MMX Enhanced Processor

* AMD K6 233/266/300 MHz w/CPU Fan
* ASUS TX Chipset PCI Bus MotherBoard w/512 PB Cache
* 32MB SDRAM Dimm 12ns
* UltraDMA/33 4.3GB EIDE Hard Drive
* 15" SVGA .28DP Flat Screen Monitor
* PCI Video card w/2MB
* Mitsumi 1.44MB Floppy Drive
* Mitsumi 104 Enhanced Keyboard
* Mitsumi Mouse w/ Pad
* Built in Board PCI EIDE Controller 4HD/2FD
* 2 Serials (16550 UART) & Parallel Port
* Med Tower Case w/ 230 Watts
* Creative Lab SoundBlaster 16
* 24X EIDE internal CDROM
* Shield computer power speaker
* 33.6 Internal Fax Modem
* Microsoft Windows 95 w/free Win 98 upgrade #

$ 949 / 979 / 1019
233 / 266 / 300

Cyrix 6x86MX PR200~PR300 3.2GB UltraDma HD 16MB

* Cyrix MX 686 PR200,233,266,300 w/MMX Enhanced
* ASUS SP97-V SIS Chipset PCI motherboard w/ integrated VGA & 512KB PB Cache
* 16MB EDO Simm 60ns (up to 256MB)
* 3.2GB UltraDMA/33 IDE Hard Drive
* 14" SVGA .28DP Non-interlace color Monitor
* Built in Video adapter
* Mitsumi 1.44MB Floppy Drive
* Mitsumi 104 Enhanced Keyboard
* Mitsumi Mouse w/ Pad
* Built in Board PCI EIDE Controller 4HD/2FD
* 2 Serials (16550 UART) & Parallel Port
* Mini Tower Case w/ 230 Watts
* 16 bit sound card
*24x internal CD Rom
*Mini Shield computer speaker
*Microsoft Windows 95 w/free Win 98 upgrade #
*Xoom HomeOffice Suite 97

$ 729 / 749 / 779 / 839
Cyrix M2 PR200 / PR233 / PR266 / PR300

Monitors

Impression 14" 4VX 1024x768 28dp NI	$179
Impression 15" 5VX 1280x1024 72Hz 28dp	$219
Impression 17" 7 PLUS 1280x1024 72Hz .27dp	$399
Impression 17" Venna Pro .25dp 1600x1280	$559
Hansol 14" 1024 28dp	$179
Hansol 15" 1280 28dp	$219
Hansol 17" 1280 .28dp	$399

ViewSonic

ViewSonic 14" E641 .28	$249
ViewSonic 15" E655/15GS/15GA	$339/359/399
ViewSonic 17" 17GA/17GS/17PS	$649/599/699
ViewSonic 17" GT770/PT770/PT775	$689/729/899
ViewSonic 20" GT800 30	$1249
ViewSonic 21" G810/P810/PT810	$1449/1499/1639

SONY

SONY 15" 100SX/100SF .25	$349/399
SONY 17" 200SX/200SF/17SE2T .25	$599/649/799
SONY 20" 300SFT/20SE2T	$1429/1899

NEC

NEC 15" M500	$349
NEC A700/A500	$599/349
NEC E500/E700	$399/679
NEC 21" E1100	$1250

GoldStar

StudioWork 77i	$399

IIYAMA

Iiyama 17" VisionMaster .26 /Pro .25	$559/649
Iiyama 21" MT8221E/MT9021E	$1359/1449

HITACHI

Hitachi 15" Pro 500/17" Pro 600	$319/559
Hitachi 20" Pro 20/21" Pro 800	$1199/1449

Video Cards

Trident 9000(512K)/8900D(1MB) ISA 1024x768	$35/49
Trident 9680 PCI 1MB/2MB	$45/59
Trident ProVidia 9685 w/TV out & 2MB EDO	$79
Cirrus Logic 5446 PCI 1MB/2MB	$45/59
Cirrus Logic LAGUNA3D 5464 PCI 4MB Rambus	$109

DIAMOND

Diamond Stealth 64 VLB/PCI 1MB/2MB DRAM	$59/74
Diamond Stealth 64 Video PCI 1MB/2MB EDO	$65/79
Diamond Stealth 64 Video PCI 2MB VRAM	$129
Diamond Stealth 3D 2000 PCI 2MB/4MB EDO	$89/115
Diamond Stealth 3D 3000 PCI 2MB/4MB VRAM	$149/195
Monster 3D 3400XL 4MB EDO	$239

ORCHID

Righteous 3D VGA 4MB EDO	$229

ATi

3D Xpression PCI 2MB/4MB SDRAM	$129/149
All in Wonder PCI 4mb	$179
All in Wonder Pro PCI/AGP 4mb	$265/285

matrox Millennium

MGA Millennium II 3D PCI 4MB WRAM	$245

MYSTIQUE

Mystique 220 PCI 2MB/4MB SGRAM Retail Version	$139/169
Memory upgrade for Mystiques 2MB/4MB/6MB	$49/95/145

RAINBOW RUNNER

Rainbow Runner Studio For Mystiques	$245
Rainbow Runner Television For Mystiques	$89

Intel Pentium II 233~400 6.4GB 64MB SDRAM AGP Port

*Intel Pentium II 233~400MHz w/512KB L2 Cache W/MMX Technology
*Asus P2B PentiumII 440BX MB W/AGP Port
*64MB SDRAM
*6.4GB UltraDMA/33 EIDE Hard Drive
*Matrox Productiva G100 AGP Video 8MB
*17" SVGA Monitor 1280x1024
*Teac 1.44MB Floppy Drive
*Keytronic 104 Keyboard
*Microsoft mouse w/ pad
*32X EIDE Internal CDROM
*Creative Lab AWE 64 Sound Card
*Yamaha Yst-M7 Speaker
*U.S. R Int. V.90 56K Fax/Data Modem
*ATX Medium Tower Case 235Watts
*Microsoft Windows 95 w/free Win98 upgrade #

*DVD Upgrade Option:
*ATI AGP 4MB Video Card w/Soft DVD Player
2XDVD, 20X CD Rom Drive Add $99

Ask for upgrade option for PC100 compliant Memory

$1699 / 1659 / 1799 / 1949 / 2029 / 2299
233MHz 266MHz 300MHz 333MHz 350MHz 400MHz

Printers & Scanner

HEWLETT PACKARD

*DeskJet 670/720CXI	$199/299
*DeskJet 890CXI	$389
*DeskJet 1000CXI	$399
*LaserJet 6LXi/6PXi	$389/739
*LaserJet 4000/4000T	$1125/1279
*LaserJet 4000N/4000TN	$1439/1599
*ScanJet 6100	$699
*ScanJet 5100CXI parallel/5S serial	$289/189
MICROTEK ScanMaker E3 Plus	$149
MICROTEK ScanMaker E6	$285
MICROTEK ScanMaker E6 Pro	$499
MICROTEK Color Pagewiz for Win	$159
UMAX Astra 610P	$139
UMAX Astra 610S	$149
UMAX Astra 1200S Windows Deluxe	$249
UMAX Astra 1200S Windows Photoshop	$499
Logitech PageScan USB Color	$199
Logitech ScanMan Color 2000	$129

Motherboard

*Pentium SP97-V/X 512PB Cache 75~233MHz (MMX,Cyrix 686,AMD K6)	$95/$105
*Pentium TXP4/X Triton TX 512PB Cache 75~233MHz (MMX,Cyrix 686,AMD K6)	$115/129
*Pentium TX97/X Triton TX 512PB Cache 75~233MHz (MMX, Cyrix 686,AMD K6)	$145/160
***Pentium II P2L97/S 440LX / AGP Port 233MHZ~333MHz**	**$169/279**
***Dual Pentium II P2L97DS 440LX / AGP Port 233MHz~333MHz Ultra Wide SCSI**	**$439**

Intel

*Pentium TX 512kb Cache,16 audio	$179
*Pentium Pro Venus PCI ATX MB	$150
*Pentium II AL440LX MB Universal Serial Bus	$195
*Dual Pentium II DK440LX MB Uinversal Serial Bus	$549
*Pentium II R440LX MB For server	$599

Mass Storage

HEWLETT PACKARD / QUANTUM

*Colorado 5GB Int/Ext	$200/250

IOMEGA

*Zip 100MB Ext Parallel/SCSI	$145/145
*Zip 100MB Int IDE	$99
*Zip 100MB Ext Zip Plus	$189
*Jaz 1GB SCSI Int/Ext	$295/395

WESTERN DIGITAL

*2.0GB Ultra/DMA Hard Drive	$145
*3.2GB Ultra/DMA Hard Drive	$169
*4.3GB Ultra/DMA Hard Drive	$199
*6.4GB Ultra/DMA Hard Drive	$249
*Quantum 2.1GB ST Ultra/DMA HD	$150
*Quantum 3.2GB ST Ultra/DMA HD	$175
*Quantum 4.3GB ST Ultra/DMA HD	$199
*Quantum 6.4GB ST Ultra/DMA HD	$255
*Quantum 8.4GB ST Ultra/DMA HD	$345

CDROM, Modem, Speaker

*USRobotics SportSter 56K Int/Ext	$145/165
*USR Courier V.Everything 56Int/Ext	$205/240
*USR SportSter Bulk 56K Int/Voice	$99/120
*Diamond 56K PCI V 90 Int Voice/Fax	$89

MODEM

*Toshiba SCSI2 32X CDROM	$109
*Toshiba 32X EIDE CDROM	$95
*Mitsumi 32X/24X EIDE CDROM	$92/75
*Pioneer 24X/32X Slot EIDE	$92/75

SOUND

SoundBlaster 16	$44.95
SoundBlaster 64 Value	$79.95
SoundBlaster 64 Gold	$174.95
SoundBlaster Eqsonic PCI	$49.95
Diamond Monster M80	$94.95
Diamond Monster Sound	$139.95

SPEAKER

Power Speaker YSTM7H	$49.95
Altec Lasing ACS45 Subwoofer System	$89.95

AiM Computers

1819 Willow Pass Road, Concord, CA 94520
TEL: (510) 687-2822 FAX: (510) 687-5276

(All calls may be monitored to insure quality)

Come Visit http://www.aimcomp.com/

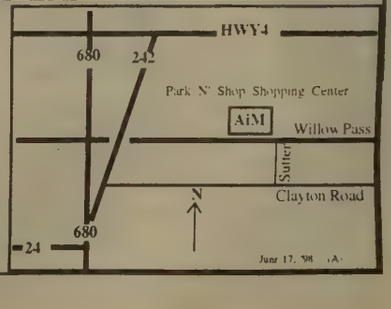
Hours: Mon-Sat 10:00-7:00 Email: sales@aimcomp.com

VISA MasterCard DISCOVER

AiM Quality Guarantee
* Lifetime Labor & 1 Year Parts
* 72 Hours Burn in

On-Site Service Repair Available
Delivery & Setup Available
Financing & Leasing Available

Prices subject to change without notice
Not responsible for typographical errors
Trademarks are registered by the respective companies
Contents subject to change without notice
** Limited warranty, see store for detail
# End User Need to pay $14.99 for Shipping & handling



A.R.T. MULTIMEDIA SYSTEMS, INC

424 S.MAIN STREET., MILPITAS, CA 95035
Tel. (408) 946-7852 * Fax (408) 946-7892
E-Mail: Artcom 7853@AOL.COM

The Best in Service, Quality, and Price

Bus Hrs:
Mon-Fri: 9:30-6:00
Sat-Sun: 11:30-4:00

Visit our WebSite at http://www.artmul.com
We provide ON SITE service, set-up, pickup, & delivery.
We have the lowest rates on labor & service for UPGRADES & REPAIRS

*Prices & availability subject to change without notice.
*Not responsible for typos.
*Prices based on check prices.
*Cash discount for currency only
*Company term on credit approval
*School & Government PO's accepted

FOR THE MOST UPDATED PRICES, PLEASE REFER TO OUR SUNDAY SJ MERCURY COMPUTING AD

DUAL PENTIUM II CAD WORKSTATION/SERVER

Intel **Dakoda DK440LX** chipset, **supports Ultra DMA**
(2) Pentium II CPUs & fans
64MB ECC SDRAM DIM
Matrox Millenium II AGP w/4MB WRAM.
Adaptec Ultra Wide SCSI on MB
4.5 GB IBM (7200RPM) Wide
1.44 TEAC FD
ATX Medium Tower Case W/300W
104 **Keytronics** w/ WIN 95 Key
Crystal 16 bit sc on MB
Toshiba 32X EIDE CD ROM
180W Stereo Speakers
Microsoft Intellimouse &pad
Intel etherexpress 10/100 on MB
US Robotics **56K W/voice** Fax
Window NT w.s preloaded
(Monitor Not Included)

Pentium II® 333 $2363
Pentium II® 300 $2139
Pentium II® 266 $1873
Pentium II® 233 $1768

SUPERIOR SE440BX 100MHZ-BUS

Intel Seatle SE440BX chipset MB supports 66Mhz & 100Mhz system buses,DMA, & USB
64MB-100MHZ SDRAM uggradable to 348MB
6.4 GB Ultra DMA HD
1.44 TEAC FD
Matrox Millenium II AGP
4MB WRAM
ATX Medium Tower Case
104 Keytronics keyboard
Viewsonic G773 monitor
Crystal 16 bit SC on Board
Toshiba 32x EIDE CDROM
56K US Robotics Fax modem w/voice
180W Stereo Speakers
Microsoft Intellimouse,pad
Windows95 preloaded w/CD

Pentium II® 400 $2156
Pentium II® 350 $1916

PENTIUM II PROFESSIONAL WORK STATION

Asus P2L97 LX-440 MB chipset MB supports Ultra DMA/33, SDRAM
64 MB SDRAM (2 of 32MB)
Matrox Millenium II AGP w/4MB WRAM
6.4 GB Ultra DMA HD
1.44 TEAC FD
ATX Medium Tower Case
104 Keytronics KB w/ WIN 95 Key
Sony 200GS 17" .25 monitor
Creative Labs AWE 64 SC
Toshiba 32x EIDE CDROM
56K US Robotics Fax modem w/voice
180W Stereo Speakers
Microsoft Intellimouse & Pad
Windows95 preloaded w/cd &Man

Pentium II® 333 $1970
Pentium II® 300 $1859
Pentium II® 266 $1726
Pentium II® 233 $1673

MMX INTELLIGENT POWER

Asus TX97 w/Intel 430TX chipset MB supports Ultra DMA/33, SDRAM
64 MB SDRAM (2 of 32)
Matrox Mystique 220 w/ 4 M B
6.4 GB Ultra DMA HD
1.44 TEAC FD
ATX Medium Tower Case
104 Keytronics KB w/ WIN 95 Key
Viewsonic G771 monitor
Creative Labs AWE 64 SC
Toshiba 32x EIDE CDROM
56K US Robotics Fax modem w/voice
180W Stereo Speakers
Microsoft Intellimouse ,pad
Windows 95 preloaded w/cd

Pentium® 233MMX 1345
Pentium® 200MMX 1312
AMD K6 300 1457
AMD K6 266 1315
AMD K6 233 1290

SMART AN430TX SYSTEM

Intel Anchorage AN430TX chipset w/512K MB, supports Ultra DMA, 32MB SDRAM DIM.
Matrox Mystique 220 4MB
PCI EIDE w/IO & 16550 UART
3.2 GB Ultra DMA HD
1.44 TEAC FD
ATX Medium Tower Case
104 Keytronics KB w/ WIN 95 Key
MGC 1785 17" Monitor
Yamaha OPL4 16 Bit SC
Toshiba 32X EIDE CD ROM
33.6 US Robotics Fax modem w/voice
180W Stereo Speakers
Microsoft Intellimouse&pad
Windows 95 preloaded w/cd

Pentium® 233MMX $1158
Pentium® 200MMX 1125

PENTIUM II LX440 POWER

Intel Atlanta AL440LX MB w/Yamhaha OPL3-SA audio
Supports AGP (Accelerated Graphics Port)
Intel CPU w/256K cache & Fan
64MB SDRAM Dim (10 NS) upgradable to **384MB SDRAM**
Diamond **Viper 330** AGP 4MB
4.3 GB Ultra DMA HD
1.44 TEAC FD
ATX Medium Tower Case
Keytronics PS2 keyboard
Microsoft Intellimouse & pad
Viewsonic G773 17" monitor
US Robotics 56K w/voice fax
180W Stereo Speakers
Toshiba 32X EIDE CD Rom
Windows 95 Predloaded w/cd

Pentium II® 333 $1714
Pentium II® 300 $1602
Pentium II® 266 $1469
Pentium II® 233 $1417

NOTEBOOKS

TOSHIBA

***SATTELLITE PRO 470CDT**
200Mhz MMX, 2.1GB, 10X, 32MB Edo, 12.1" TFT, 33.6Fax
$2459

***SATELLITE PRO 480CDT**
233 MMX, 3.8GB, 10X CD Rom, 32MB Edo, 12.1" TFT, 33.6 FaX
$2667

***TECRA 520CDT**
166MMX, 2.02GB, 10X, 32MB EDO, 12.1" TFT, 33.6 Faxmodem
$2268

***TECRA 730XCDT**
150MHZ MMX, 2.02GB, 10X, 16MB EDO, 12.1" TFT, 28.8 FaxModem
$1500

HITACHI

***VISIONBOOK PRO**
266MMX, 48MB, 3.2GB, 56K, 20X, 12.1"TFT
$3013

***VISIONBOOK PLUS**
233MMX, 32MB, 3.2GB, 56K, 20X 12.1" TFT
$1887

***VISIONBOOK PLUS**
200MMx, 32MB, 2.1GB, 33.6, 10X, 12.1" TFT
$1596

ULTIMATE PROFESSIONAL

Intel Anchorage AN430TX chipset, ultra DMA, 512K 32MB SDRAM DIM
Diamond 3D 2000 w/ 4MB EDO RAM ,1.44 Teac FD
2.1 GB Ultra DMA HD
ATX Medium Tower Case
104 Mitsumi KB ,MS mouse&Pad
Yamaha MF701 16 bit stereo SC
Toshiba 24X EIDE CD ROM
180W Stereo Speakers
MGC 15" NI (1280x1024, .28dp)
Windows 95 Preloaded w/cd

Pentium® 233MMX $858
Pentium® 200MMX $824

MULTIMEDIA

❖CREATIVE LABS

SoundBlaster AWE64 Gold Ret	180
SoundBlaster 16 bit PnP	39
SoundBlaster AWE64 oem	64
SoundBlaster 32 PCI oem	45
❖ TOSHIBA	
32X IDE/32X SCSI	72/103
24X EIDE	64
❖Plextor 32X SCSI	199
❖ CD Writer	
Yamaha 4X6x2 Int SCSI Rewrt	540
Yamaha 4X6X2 IDE Rewrt	450
Sony 2X6 Int Retail SCSI	350
Sony 2X8 Int. Retail IDE	300
Panasonic 4X6 Int. Ret.SCSI	345
❖ DVD	
Creative Labs Encore DXR-2	259

FAX MODEMS

❖SUPRA

Supra net commander ISDN oem	172
56K Int w/voice V.90 oem	99

❖US ROBOTICS Sportster

33.6 w/voice Int. oem	88
56K V.34 voice oem Int.	105
56K V.90 /w/voice oem Int.	110/128
56K V.90 no voice Ret. Int/Ext	142/162
56K V.90 w/voice Ret. Int/Ext	162/218

KEYBOARDS

Mitsumi 104/Lite-on Touch pad	15/39
Maxiswitch/Keytronics	20/23
Focus 2001/7200	28/30
Focus 8200/9200	43/45
Microsoft Natural OEM w/s	50

MB & CPU'S

Intel SE440BX + PenII 400 /512k	$1010
Intel SE440BX + Pen II 350/512k	$766
Asus P2B98-440BX+Pen II 400/512k	$985
Asus P2B98-440BX+Pen II 350/512k	$740
Intel Dakota Dual Pen II 333/512k	$1479
Intel Dakota Dual Pen II 300/512k	$1250
Asus P2L97-S Dual +Pen II 300/512k	$1103
Asus P2L97-SLX440+Pen II 333/512k	$711
Asus P2L97-LX440+Pen II 333/512k	$616
Asus P2L97-LX440+Pen II 300/512k	$502
Asus P2L97-LX440+Pen II 266/512k	$366
Asus P2L97-LX440+Pen II 233/512k	$313
Intel Atlanta AL440LX+Pen II 333/512k	$642
Intel Atlanta AL440LX+Pen II 300/512k	$528
Intel Atlanta AL440LX+Pen II 266/512k	$392
Intel Atlanta AL440LX+Pen II 233/512k	$339
Anchorage/512k+Pentium233MMX	$234
Anchorage/512k+Pentium200MMX	$200
Asus SP97V/512k+Pentium 233MMX	$208
Asus SP97V/512k+Pentium 200MMX	$173
Asus SP97V/512k+AMD K6-233 Mhz	$150
Asus TX97/512K + Pentium 233MMX	$245
Asus TX97/512K + Pentium 200MMX	$211
Asus TX97/512k + AMD K6 266MMX	$214
Asus TX97/512k + AMD K6 233MMX	$188
Asus TX97/512k + AMD K6 200MMX	$176

VIDEO CARDS

❖TRIDENT

1MB ISA/1MB PCI	35/29

❖DIAMOND

Stealth 3-D PRO 2mb/4mb	54/62
Stealth II 4MB PCI SGRAM	93
Monster 3-D w/4mb Dram	110
Monster II w/8mb/12mb	210/265
3D 4000 4MB AGP	62
FireGL1000ProAGPw/4m/8	148/178
Viper 330 AGP 4mb	95

❖MATROX

Prod. G100 AGP 4MB/8MP	75/85
Millenium II PCI 4MB/8MP	125/175
Millenium II AGP 4MB/8M	125/175
Mystique 220 4MB oem	74

❖NUMBER NINE

Revol. 3D 4mb/8mb WR AG	110/162

❖ATI

3D ProturboPC2TV 4MB/8MB	82/104
All-In-WonderProAGP 4MB/8MB	219/242
XPERT@PLAY AGP 4MB/8MB	105/125
XPERT@WORK AGP 4MB/8MB	85/113

MONITORS

❖NANAO

EIZO FX-B5/TX-C7	406/745
TX-D7S(17")	947
EIZO FX-C5/FX-C6	620/698
FX-E7 / FX-E8	1463/1950

❖NEC

P750(17".25dp)/M700	735/556
E500/E700/M500	265/511/354
E1100(21")/A700(17")	1035/406

❖MAG

DJ800(19") / DX715T	534/432
DX500T / DJ700	213/347
DJ530 / DX700T (.25DP)	178/347
DJ920(21") / DJ702E	823/286
Princeton EO 50 / EO70	200/318
Princeton EO 90 (19" .26)	610

❖SONY

100ES/100GS/17SE2T	274/329/835
200GS/200ES/200PS	585/474/740
20SE2T/W900 (24")	1455/3220
400PS(19")/500PS (21")	920/1285

❖HITACHI

CM500/CM620	225/410
CM800 (21")/CM-630	1008/435
CM-751 / CM802	766/1180

❖VIEWSONIC

E641 (14") /PT775	159/648
P815(21")/ E655	1210/225
G653(15")/P655(15")	246/257
G771/GA771	379/468
G773/P775	439/463
P810/E771/PT771	1080/338/597
G800 / G810/PT813	925/955/1284
G790/GT775	709/544

❖NOKIA

447ZA (17")/447XI	494/577
445XI (21") /446P(19")	1287/744

❖IIYAMA

9017E(17")/8617E(17")	540/460
901GT(19")/A102GT(21")	735/1075

❖MGC

NI 14" Monitor 0.28	135
NI 15" .28 Digital Control	167
NI 17" Monitor 0.28	305
NI 1785 1600X1200 0.26	369

BACKUPS

T-3000 3.2GB/T4000 8GB	165/340
Iomega Zip 100 IDE Int./SCSI	95/119
Iomega Zip 100 Parrallel	139
Iomega Jaz 1.0GB SCSI Int.	250
Iomega Jaz 1.0GB SCSI Ext	265
HP DAT 4-8GB oem	670

❖TEAC

Floppy Drive 1.44	20

HARD DRIVES

❖FUJITSU

4.3 GB EIDE(M3043AT/UD)	164
5.2 GB EIDE(M3052AT/UD)	203
6.4 GB EIDE(M3264AT/UD)	210

❖QUANTUM

3.2 GB EIDE(ST33200SE-A)	155
4.3 GB EIDE(ST34300SE-A)	173
6.4 GB EIDE(ST36400SE-A)	247
8.4 GB EIDE(ST38400SE-A)	308
2.1 GB UL SCSI(ST32100SE)	206
4.3 GB UL SCSI(ST34300SE)	269
6.4 GB UL SCSI(ST6400SE-S)	350
8.4 GB UL SCSI(ST8400SE-S)	455

❖WESTERN DIGITAL

2.1 GB EIDE(AC22100)	142
3.2 GB EIDE(AC23200)	155
4.3 GB EIDE(AC34300)	170
6.4 GB EIDE(AC36400)	217
4.3GB UW SCSI (E4360-007)	475
9.1GB UW SCSI (WDE9100W)	680

❖SEAGATE

2.5GB UDMA (ST32520A)	140
4.5GB UW SCSI (ST34501W)	570
9.0GB UW SCSI (ST19101W)	850
18GB UW SCSI (ST118273W)	1400

❖MAXTOR

4.3 GB ULTRA DMA	159
6.4GB ULTRA DMA	200
8.4GB ULTRA DMA	260

❖IBM

4.3GB UW SCSI (AS34560W)	340
9.1GB UW SCSI (AS39130W)	610

CONTROLLERS

❖ADAPTEC

Adap. PCI 2940AU OEM w/SW	140
Adap. PCI 2940UWw/SWOEM	183

CASES

Baby AT Case w/ 230W	39
Mini Tower case w/230W	30
Medium Tower case 230W	48
ATX Desktop case	65
ATX Medium case	65
ATX Full Tower case w/300W	109

SOFTWARE

MS Win NT 4.0 WS w/sys	140
MS Win NT 4.0 Server .w/sys	445
Office Pro 97 no manual w/sys	165
Office Pro 97 w/manual w/sys	215

MICE

MS mouse serial/bus w/sys	23/48
MS IntelliMouse w/sys	26
Logitech Mouseman/Trackman	23/40
Logitech Marble Trackman	50

*Pentium is a registered trademark of Intel Corporation.

Scene Stealing At The Digital Corral

Digital Showbiz Now! | By Jonathan E.

"Digital showbiz" is one of those industry buzz phrases that always leaves me unsatisfied. The imagery of the expression implies so much more than it seems to currently deliver. Puzzled and puzzling, I wonder what it really means.

Let's examine those two words, "digital" and "showbiz," alone and in combination. Let's also take a look at what children of today are learning about the new world of digital media manipulation from Kid Pix Studio Deluxe, the newest multimedia version of a program that may not be a full-fledged professional tool, but is surely training the next generation in principles of interactivity and multimedia techniques.

Of course, it's no surprise that the two great dream and fortune factories of the Twentieth Century should spark excited responses as they flirt with each other and attempt to figure out the mechanics of an actual mating. It will be dramatic as new fortunes and stars are made while old fortunes are dissipated, along with a has-been or two.

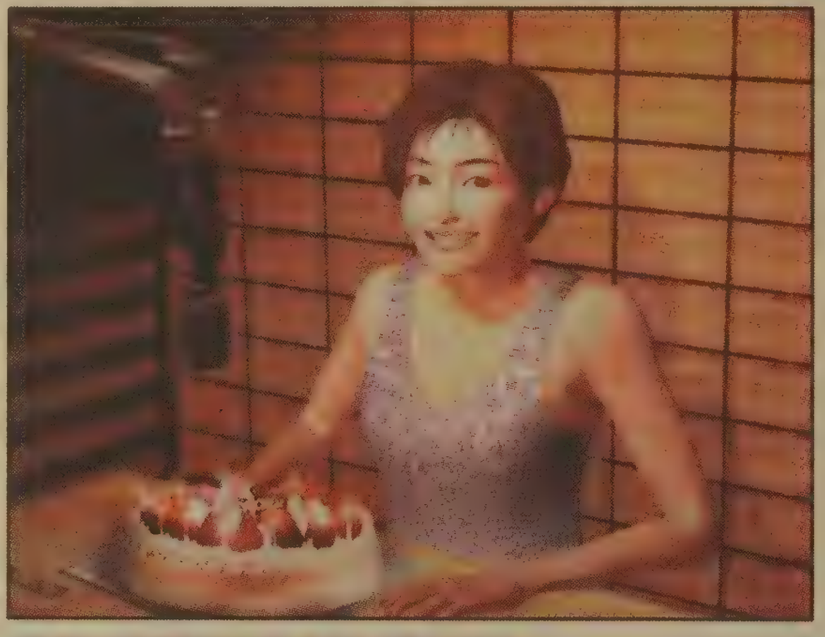
Beyond the financial frisson, new creative forms will, hopefully, be discovered that express artistic insight into human nature beyond its tendency to crave information for money-making activities and the propensity of some to blow away everything on the screen—the two apparently successful killer apps that have so far emerged for multimedia.

Digital Showbiz Today

It's true that just about every Hollywood movie produced these days uses digital techniques for increasingly flashy and spectacular special effects. As has been often noted, many of these movies offer nothing beyond the thrill of these effects; the traditional concerns of drama, plot and character development are absent, blown to smithereens by the contemporary equivalent of the Roman circus.

I suppose it is "show," and all reports also point to "biz." But it's also true that many of these special effects begin with traditional techniques, such as model-making, and are only augmented by digital dazzle.

Some movies are more subtle, using digital synthespians to reanimate historically dead characters in scenes with the still living. Today, these remain only relatively primitive examples of synthespianism, being mostly cameo roles and relying on well-known real characters to evoke ready-made awe and suspend disbelief in the already established Pavlovian manner. Savvy agents routinely protect the future digital reproduction of their famous clients, while trade visionaries project that in the future there will be digital development of entirely artificial characters, no doubt based on the results of extensive market research with focus groups.



Kyoko Date: Japan's entirely fabricated female star.

This, in fact, is already the case with some characters found on children's CD-ROMs, some of whom are now also migrating to television. The path from television to the computer screen is already well-worn from the frequent treks of various personalities, carbon-based and created 'toons, since the early days of the digital multimedia gold rush. Japan has already gone beyond the manufacture and packaging of mere humans as pop stars to entirely fabricating Kyoko Date, a female star who received the adulation of thousands of young males, all of whom were reputed to be carbon-based. And, of course, there's the famous dancing baby who boogies across the TV screen at inopportune moments for Ally McBeal.

Television commercials expose an even bigger audience to a wide range of digital production techniques on a daily basis. Creation of believable commercial characters pitching the product has, of course, been a stock-in-trade of advertising since even before the advent of electronic communication of any kind. Other elements of television programming, particularly news and weather reports along with titles and intro creation, use digital production as a basic tool.

In the world of music, digital production (both in the actual recording and mixing processes and in the creation of sound), as with sampling and synthesizers, has become commonplace over the past two decades. Tape blocks for splicing tape have become antiquities, signs of a craft as it was once practiced, commented upon, when seen in a modern studio, much as you might note a typewriter on a writer's desk.

However, all these activities so often associated with digital showbiz—special effects, charac-

ter creation, commercials, music making—were important parts of showbiz before digital techniques; they're not inherently digital, whatever their current manifestations or industry infatuation. I think of them only as tools, as part of the process, not a complete package. What's really important about them is that they integrate into an already existing industry, rather than stand on their own; they're an evolution rather than the hypster's revolution.

When I hear the words "digital" and "showbiz" together, I expect the show itself, the actual delivery, to be digital—with all that that implies. Besides music CDs, the audience still receives traditional showbiz products overwhelmingly in traditional analog ways. DVDs may also be about to become the physical digital carriers for movies, much as CDs are for music, but there's still a lot of old-fashioned physical messing around involved with distribution and retailing, even in those digital formats.

Besides that, a traditional movie or music CD is still a pretty linear experience, with relatively low interactivity. In essence, choosing to watch it, or not, or jump to a different track, is about as binary as the experience gets. The word "digital" implies some greater degree of interactivity with the material or audience control of the content than that.

Some may argue that the Web is today's digital showbiz, with its legions of fan sites devoted to various TV shows and other aspects of the American cultural experience, not to mention all its promotional sites for movies and books and, of course, its sports sites and music sites, bravely attempting to convince us that it's pleasant to listen to really bad audio—not to mention the Web's star-like tendency to hog society's spotlight.

There is some truth to the Web being today's manifestation of digital showbiz, but it's mostly ancillary stuff rather than the show itself; it's more like digital amateur theatrics—and there's still that nagging question of just where the biz is when it comes to content on the Web. Certainly there are isolated examples of profitable sites, but they're few and far between and tend to cater to very specialized tastes. In the real world, it's often a bad showbiz career move to work in those sorts of places, particularly if someone unscrupulous gets his hands on the negatives.

The Digital Showbiz of the Future

Digital television is the great hope for legitimate digital showbiz, somewhere out there on the horizon. In the short term, I pity the poor executive who must make the right choices about programming, equipment, resolution, and use of available bandwidth.

Well, I pity him as an individual; as a class, the broadcasting industry is feeding off the fat of the public's spectrum and can barely go wrong. There's a great big piñata full of goodies just waiting to be broken open by the wildly flailing, blindfolded corporate beneficiaries of the FCC's decision to remove spectrum from smaller community stations and reassign it for free to those upstanding stations that serve the political status quo, those corporate citizens of the national entertainment state, as it has so piquantly been called. The only consolation is that it's going to be grand entertainment watching them all blindfolded together, flailing around and clobbering each other as they thresh for the piñata's prizes. The outcome of the myriad of technical, creative, financial, and political decisions involved with getting digital televison off the ground and into the air will be unknown for several years. The promise is that we'll get some form of synchronized Web (or other digital medium) and TV content, along with higher resolution. The question

The Web as digital showbiz: fan sites devoted to movies and TV shows (like TNT's Rough Cut—a TV show about movies) abound.

of whether this will be genuinely useful information or just better ways to be good little consumers, readily marketed to on the mythical one-to-one basis, is theoretically open.

Personally, I doubt that the public will genuinely benefit; perhaps we'll get some better circuses, but most of the bread will go to corporate and business interests. However, this is the currently favored Holy Grail of digital showbiz, the combined talents of the multimedia and entertainment industries.

It's worth noting that this is the real reason behind the current efforts to unseat Microsoft as king of the operating-system-and-software hill. While its dominance of the computer industry as it exists now is certainly questionable, the present situation is really just a prologue to the real prize for Microsoft, controlling all those set-top boxes and taking a slice out of every transaction in the great American entertainment economy. Not only that, but to some extent Microsoft's ability to control the content of the future, to participate in the process of shaping public opinion, is the threat that the ungainly alliance of the Department of Justice, various states, and wanna-be silicon players is attempting to strategically head-off.

Behind the Scenes At The Kid Pix Studio

Panning, tracking, zooming, cutting (whatever it is) from the big to the small picture, it's obvious that the digital showbiz of the future will need workers and artists who are familiar with the techniques of new media language and manipulation. It's generally recognized that the language of film and its ability to artistically tell a story advanced dramatically when Orson Welles made *Citizen Kane*, several decades after cinema first emerged. A similar situation exists in multimedia.

One of the problems with interactive multimedia is that it hasn't been very good at telling a story artistically; its language has not been sufficiently developed. Those who've labored at it so hard grew up in an earlier world when media behaved differently. They didn't assimilate the techniques of interactivity in their most plastic years of childhood, but rather set out to learn them in their adult years. Perhaps one reason why games are relatively advanced in their use of interactivity is that many of those working in the field really played games in their earlier years and thus practiced their skills.

The new version of Kid Pix Studio Deluxe is, in effect, a media language kit to allow children to experiment with media manipulation. Earlier versions of the program let children paint with some wild and wacky brushes, play with digital puppets, record their voices, and present slide shows of their work. All valuable skills in the multimedia world and great fun, but relatively basic and, dare I say it, requiring children to create from scratch rather than take something already existing and manipulate it.

The new version, however, adds a few extra features that, while mostly not spectacular individually, cumulatively add up to a rather interesting package, enhancing skills that any media manipulator of tomorrow will need. *continued on page 120*

Your #1 Source For Nobody Beats

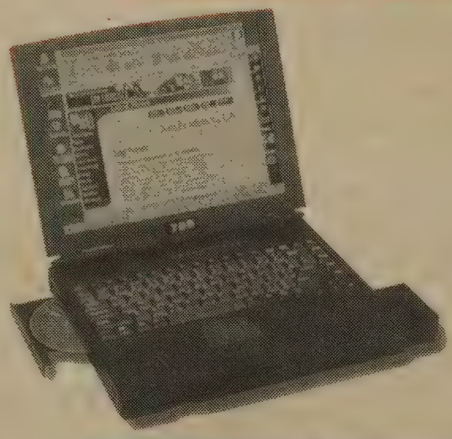
Visit Us On the Web:
www.hitron.com

High Performance All-In-One Mitac® Chembook 3300

- Intel 430TX Chip
- 256K L2 Cache
- 64-Bit PCI 2MB Video
- Ram up to 96MB
- 1 USB port
- 3D Sound System
- 2 Type II or 1 Type III PCMCIA
- Support Cardbus & Zoomed Video
- Internal Modem Option Available

DISPLAY	CPU TYPE	2.0GB	3.0GB	4.0GB	5.0GB
12.1" TFT 8MB RAM ATI 3D 1.44 FDD NiMH Battery	P200 MMX	$1350	$1385	$1485	$1620
	P233 MMX	$1370	$1410	$1520	$1655

Powerfull P-II Maxtech 759 Notebook



- 512K Cache
- 4MB PCI 3D Video
- Video In & Out Capture
- Lithium (3.5hp) Battery
- 3D Full Duplex Stereo Audio w.1MB Wavetable
- Support Cardbus & Zoomed Video2 USAf Ports
- 2 Type II or 1 Type III PCMCIA
- 3.5" Smart Bay (can install FDD, Zip, 2nd HDD or DVD POM)
- Internal Modem Available

DISPLAY	CPU TYPE	3.0GB	4.0GB	5.0GB
12.1" TFT ATI 3D SDRAM Upgradable to 256MB	233 MMX	$2309	$2429	$2579
	Tillamook 233MMX	$2459	$2589	$2759
	Tillamook 266MMX	$2599	$2719	$2889
	PII Deschute 233	$2649	$2799	$2949
	PII Deschute 266	$2959	$3069	$3239

Super Fast Pentium® II System

- Intel 440LX Chip Pentium® II Motherboard
- 32MB SDRAM
- 1.44MB Floppy Drive
- 3.2GB Hard Disk
- Matrox Millennium w/4MB Display (PCI/AGP)
- ATX Mid Tower Case w/235W P.S
- 104 Win 95 Keyboard
- 24X CD-ROM
- Logitech Mouse
- 16-Bit Sound Card
- 60W Speakers
- 56K Fax Modem w/Voice

CALL FOR CUSTOM CONFIGURATIONS

Pentium® II 233 System $999
Pentium® II 266 System $1050
Pentium® II 300 System $1197
Pentium® II 333 System $1345
Pentium® II 350 System $1545
Pentium® II 400 System $1776

Hitron Basic Enhanced System

- ASUS Pentium® Motherboard/512K
- 32MB RAM
- 1.44MB Floppy
- 2GB Hard Disk
- On-Board 2MB Video
- Mid-Tower Case 2.250W P.S
- 104 Win 95 Keyboard
- Mouse
- 16X CD-ROM

FREE Lifetime Labor Warranty! Call For Details!

Pentium® 233MMX $559
AMD K6-233/266 . . . . . $499/579
Cyrix MII-200 . . . . . $467
Cyrix MII-233 . . . . . $493

Networking Services

- Lantastic
- Novell
- CNE On Staff
- Hardware & Software Installation
- Design
- Free Consultation

408.261.2695
408.261.2698 Fax

- 1-Year Parts Warranty/ 3-Year Labor for Notebook
- Lifetime Labor & Tech Support for Systems
- Nationwide On-Site Service Available
- Corporate PO's Welcome
- Corporate Leasing Available

• All Special Order Items Non-Refundable • Prices Subject to Change W/O Notice • Not Responsible for Typos • Prices Reflect Cash Discount •

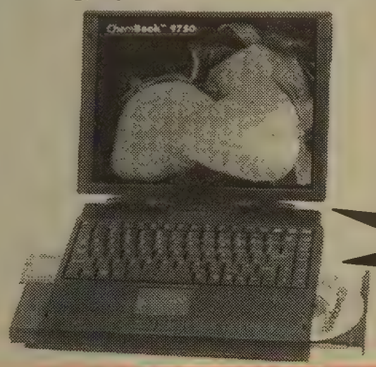
NOTEBOOKS SINCE 1990
OUR PRICES!

Best Seller Chembook 9780/9780M

- Upgradable to PII CPU (9780M) Intel 430TX Chip
- 512K L2 Cache
- 64-Bit 4MB pCI Video
- Video Capture Built-In
- RAM up to 128MB
- 3D Surround Sound System
- 2 Type II or 1 Type III PCMCIA
- 2 USB Ports
- Hot Docking, Zip Drive and Internal Modem Available

DISPLAY	CPU TYPE	3.0GB	4.0GB	5.0GB
12.1" TFT 1600x1024x16	P233 MMX	$1659	$1789	$1949
	Tillamook 233	$1869	$1999	$2159
1.44 FDD	Tillamook 266	$2149	$2269	$2429
	P-II Deschute 233	$2089	$2219	$2379
NiMH Battery	P-II Deschute 266	$2379	$2509	$2689
	AMD K6 233	$1599	$1739	$1899
	AMD K6 266	$1689	$1809	$1979

14.1" TFT + Lithium Battery . . . . . .add $630



13.3"

Monthy Blow-Out Special
Chicony 975/Chembook 9750

• 13.3" TFT XGA LCD • 20X CD-ROM • 512K L2 Cache
• RAM up to 80MB • 1.44FDD
• 2 Type II or 1 Type III PCMCIA Slot • 3D Stereo Sound System
• Lithium Battery • 2MB PCI Video

CPU TYPE	2.0GB	3.0GB	4.0GB	5.0GB
P200 MMX	$1595	$1620	$1755	$2020
P233 MMX	$1640	$1685	$1820	$2095

CALL US NOW FOR NOTEBOOKS IN STOCK!
We've Got • Toshiba • NEC • Everex • AST • IBM • ACER • & Much More!

PLEASE

NEC

- **NEC 2655 CDT** P150MMX/1.6MB/1.4GB/10XCD/33.6FM/12.1" TFT . . $1399
- **NEC 2650 CDT** P150MMX/1.6MB/1.4GB/10XCD/33.6FM/12.1" TFT . . $1599
- **NEC 6200MX** P166MMX/64MB/2.1GB/20XCD/13.3" TFT $2250

FUJITSU

- **Fujitsu 535TX** P133MMX/16MB/2.1GB/20XCD/33.6FM/12.1" TFT . . $1350

SAMSUNG

- **Samsung 525** P150MMX/48MB/2.1GB/33.6FM/10XCD/12.1" TFT . . $1899

IBM

- **ThinkPad 380D** P150MMX/2.1GB/16MB/NiMH/8XCD/12.1"FRSTN/WIN95 $1365
- **ThinkPad 380XD** P233MMX/2.1GB/32MB/24XCD/12.1" HPA $1865
- **ThinkPad 560X** P233MMX/32MB/4GB/12.1" TFT/WIN95 . . . . . $2963
- **ThinkPad 770** P233MMX/32MB/5GB/20XCD/33.6FM/14.4" TFT. $4165
- **ThinkPad 770E** PII-266/5GB/32MB/DVD/33.6FM/14.1" TFT $4396
- **ThinkPad 770ED** PII-266/64MB/8.1GB/56K/DVD/14.1" TFT $5545

TOSHIBA

- **Libretto 50CT**- P75 16MB/810 6.1" TFT $695
- **Libretto 70CT**- P120 16MB/810 6.1" TFS $1560
- **Libretto 100CT**- P166 32MB/2.1GB 7.1" TFT $2295
- **520CDT**- P166MMX/32MB/2GB/33.6FM/10XCD/12.1" TFT . $1799
- **470CDT**- P200MMX/32MB/2GB/33.6FM/10XCD/12.1" TFT $2395
- **480CDT** P233MMX/4GB/32MB/12.1" TFT/10XCD/33.6FM $2579
- **490CDT** PII-233/32MB/4GB/56K/20XCD/12.1" TFT $3399
- **490XCDT** PII-266/32MB/4GB/56K/20X/12.1" TFT $3799
- **750CDM** P233MMX/32MB/4.7GB/13.3" TFT/56K/DIGITAL CAMERA. . . $4550
- **750DVD** P233 32MB/4.7GB/DVD 13.3" TFT/56K FM/4MB SGRAM. . $4999
- **780CDM** PII-266/64MB/5.1GB/56K/20XCD/13.3" TFT . . $4799
- **780DVD** PII-266/64MB/5.1GB/56K/DVD/13.3" TFT. $5199
- **500CDT** P120/16MB/1.2GB/6XCD/288FM/12.1" TFT (REFURBISHED/1 YR. MANUFACTURER WARRANTY) $1099

PLEASE CALL FOR MORE MODELS!

COMPAQ

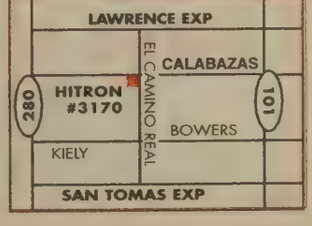
- **Compaq 1210** P150/16MB/1.4GB/33.6FM/14XCD/12.1" DSTN . . . $1299
- **Compaq 1220** GX200/32MB/2.1GB/56K/20XCD/12.1" HPA $1575
- **Compaq 1622** P233/32MB/3.2GB/56K/20X/12.1" DSTN. $1949
- **Compaq 590DMT** P166MMX/32MB/2.1GB/33.6FM/12.1" TFT $2465
- **Compaq 1592DMT** P233MMX/32MB/3.2GB/12.1" TFT $2895
- **Compaq 1590DMT** P266MMX/32MB/4GB/20XCD/13.3" TFT $3299
- **Compaq 7370DMT** P233MMX/32MB/4GB/33.6FM/20X/12.1" TFT . $3445

Hitron Systems

3170 El Camino Real • Santa Clara, CA 95051
(Between Lawrence Expressway and San Tomas Expressway)

408.261.2695 • 408.261.2698 (Fax)

Hours:
Monday - Friday: 9 - 6
Saturday: 10:30 - 4:30
E-Mail Sales: info@hitron.com



• 90 Days Same As Cash •

• All Special Order Items Non-Refundable • Prices Subject to Change W/O Notice • Not Responsible for Typos • Prices Reflect Cash Discount •

scene stealing at the digital corral

continued from page 117

On the multimedia front, the big news is that you can now type words into your pictures, pull down the menu and hear them! And in a variety of voices from instruments like bells and cellos, to attitudes like bad news or deranged, to a variety of human characters. Typed text can also be edited without changing the picture underneath and the text can be formatted. Obviously, children could get into all sorts of trouble typing in dirty words just to hear how they sound in different voices, but there is something extremely appealing about the idea in principle, and it exemplifies the concept of digital media being able to change from one form to another, almost by magic.

Kid Pix Studio Deluxe: Media manipulation and interactivity for our future artists.

Many of Kid Pix Studio Deluxe's features take advantage of digital manipulation in less profound but still interesting ways. All the visual effects, from the different screens of the Wacky TV to the kaleidoscopic Electric Mixer of Kid Pix itself (the central painting element of the program) to the animations of the puppets via the keyboard, are basically pretty simple digital techniques of moving pixels. Once children understand the principles behind them, they'll come up with all sorts of new ideas on their own.

Whether they'll be able to implement them in Kid Pix is questionable. It's a limited program; many of its effects and features are not available in all its modules. But that's rather like the real world—you have to learn to work around the limitations. However, in Kid Pix, there are some easy-to-figure-out things to do with graphics that are not in the manual and produce some interesting effects.

Beyond that, this new version comes with lots of clip art of various kinds—backdrops, cut-outs, rubber stamps—that can be manipulated in all sorts of ways, just like the real graphics world. There are also clip sounds, although your ability to manipulate those is limited to selecting them. In addition, you can now import photos and graphics from other sources, like PhotoCD and the Internet, and export them or attach them to email.

I am skeptical of much of the hype about digital showbiz, I am skeptical of the projected future ruled by new forms of media—but I have no doubt that some child who's playing with Kid Pix Studio Deluxe today, and gaining experience at an early age with other forms of media manipulation and interactivity, will figure out how to tell effective stories with these new techniques and will create the interactive equivalent of *Citizen Kane*. It'll probably be the story of Bill Gates. I just wonder what his Rosebud will be. ◆

Resources:

Kid Pix Studio Deluxe
Macintosh/Windows CD-ROM
Brøderbund Software, Inc.
Estimated price (no suggested retail): $29.99
May be ordered directly from Brøderbund at 1-800-521-6263 or via the Web at *www.broderbund.com*

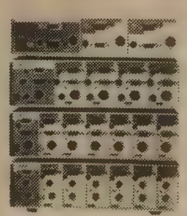
Copyright © 1998 by Jonathan E. All rights reserved.

Control Multiple PCs With One Keyboard Mouse and Monitor!

EDIMAX'S CPU SWITCHES

- Save money on redundant peripherals
- Save precious space by eliminating extra keyboards, monitors & mice
- Control 2, 4 or 6 PCs
- Uses standard cables
- Supports AT or PS/2
- Supports VGA, SVGA & XVGA
- Control by push-button, keyboard, hot keys, or auto scan
- Truly plug-and-play
- Intelligent keyboard & mouse emulation to ensure successful PC boot up

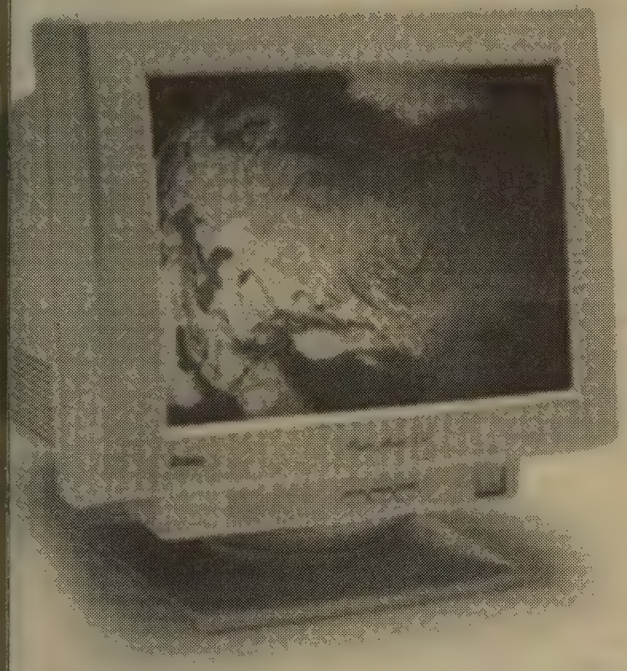
EDIMAX
1-800-652-6776
Tel: 408-496-1105
Fax: 408-980-1530
http://www.edimax.com



Ordering Information	Item #	Description	List(MSRP)
	CAS221	2-Port PS/2 & AT	$159
	CAS421	4-Port PS/2 & AT	$239
	CAS601	6-Port AT	$305
	CAS611	6-Port PS/2	$305
	6-Foot Cable Kit		$20
	10-Foot Cable Kit		$30

Call for special corporate and reseller discount program!

YOU'VE SEEN THE REST ...
NOW BUY THE BEST



PC MAGAZINE Best of 1997

VISIONMASTER™ PRO 17 . . $569
17" .25DP 1600x1200 @ 74Hz

When a monitor wins a presigious award like this, it's big news. But then, iiyama monitors have been making news for some time now. In fact, iiyama monitors continue to be among the most critically acclaimed in the industry.

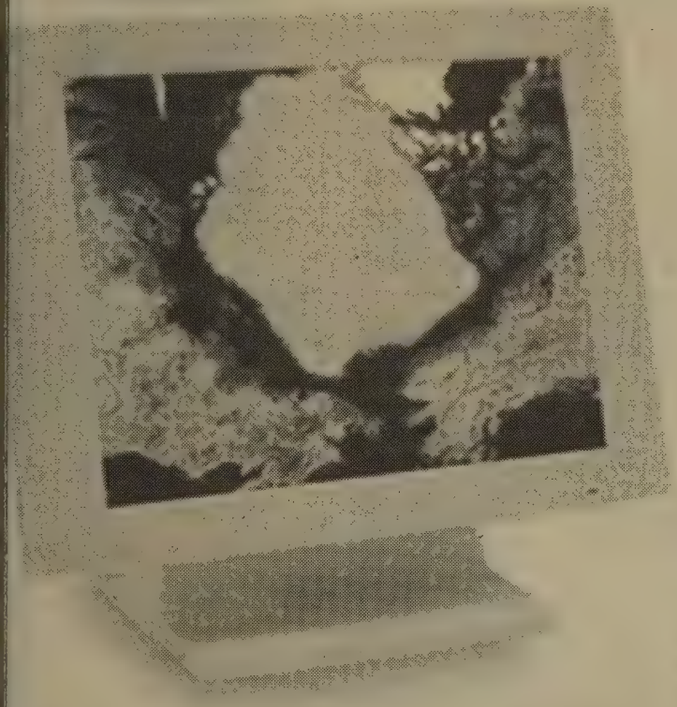
PC WORLD BEST BUY

CADALYST LABS HIGHLY RECOMMENDED 1998

VISIONMASTER™ 450 . . . . . $779
19" .22(H)DP 1600x1200 @ 80Hz

NEW 19" Award Winning Monitor, "A year ago, you couldn't dream of getting a monitor this good for this low a price.

PC WORLD BEST BUY



PROLITE 36 . . . . . $998
LCD 14.1" 1024x768 @ 72Hz

The ProLite series is the newest ultra-thin lightweight Liquid Crystal Displays.

MF-8515G .28DP 1280x1024 @ 64Hz . . . $248
MF-8617E .22HDP 1600x1200 @ 69Hz . . $488
R-817E .22HDP 1800x1440 @ 74Hz $599
S-102GT 21" .22HDP 1800x1440 @ 74Hz. $1159
A-102GT 21" .28DP 1800x1440 @ 74Hz . . $1159

iiyama®

Available at:

1-800-594-7480

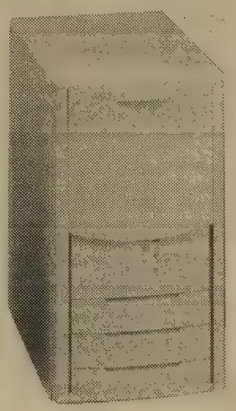
Aroma Computer		Central Computers		UMiracle Microsystems		HD Computer	
Sunnyvale	408-736-4355	Santa Clara	408-248-5888	Albany	510-526-2626	Santa Clara	408-986-9898
Modesto	209-525-8080	San Francisco	415-495-5888	San Francisco	415-885-5050	San Francisco	415-434-8118
Fresno	209-243-4250	Newark	510-793-5555	Fremont	226-3666		

Customer's Satisfaction Is Our No.1 Priority

Corporate, Government and Education Orders Welcome!

MULTIMEDIA AT WORKSTATION

- Intel Triton TX Chip Set M/B w/512K PL Cache
- Built-in IDE Controller/10
- Deluxe Mini Tower Case w/ 235 Watt Power Supply
- 16MB EDO RAM
- TEAC 1.44MB FDD
- 24X IDE CD-ROM
- 16 Bit Stereo Sound Card
- 1.6GB EIDE HDD
- Mitsumi 104 Key K/B
- 2-Button Serial Mouse
- PCI 64 Bit SVGA w/ 2MB DRAM
- 100W Stereo Speaker
- Windows 95 Release II w/Manual & CD
- Monitor Sold Separately

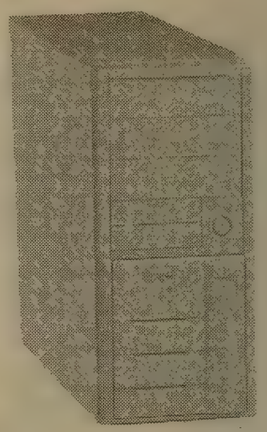


P-200MMX.....$535

P-233MMX.....$574

POWER ATX WORKSTATION

- Intel 440LX Chipset AGP M/B
- 512K PL Cache, Built-in IDE Controller/10
- Mid Tower ATX Case w/ 235 Watt Power Supply
- 32MB SDRAM
- 32X IDE CD-ROM
- 1.44MB FDD
- 4.3 GB Ultra DMA IDE HDD
- Keytronic PS-2 K/B for Win 95
- Microsoft 2-Button Serial Mouse and Pad
- Diamond Stealth 3D 4000 w/4MB AGP Card
- Windows 95 Release II w/Manual & CD
- 15" 1280 x 1024 Monitor



P-II233MMX.....$964

P-II266MMX...$1,064

P-II300MMX...$1,170

P-II330MMX...$1,350

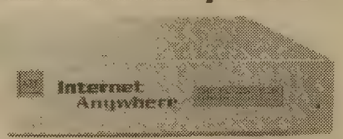
INTERNET ANYWHERE

INTERNET ROUTER E-MAIL SERVER

- Get 250 stations to access the Internet simultaneously
- Only one ISP account and one phone line is required
- No Class C IP address required
- Built-in Mail Server up to 250 private/secure E-mail addresses
- Built-in router with modem dial-up on demand
- Comes standards with internal 33.6Kb modem & 10Base T port
- Additional modela to support extemal 33.6Kb. 56Kb or ISDN modems
- Built-in firewall protecta the data on your LAN
- Standard 10Base-T LAN connection, Optional 100Base-TX. Easy Plug and Play Installation in 10 minutes

Internet Anywhere M100 33.6K Modem & 10BaseT.....$850

Internet Anywhere S100 Serial Port & 10BaseT.....$800



SUPER FILE SERVER

- Intel Dakota DK440LX AGP Dual Pentium II M/B
- Super File Server ATX Case w/ Redundancy 300 Watt Power Supply
- 64MB 10ns SDRAM
- Teac 1.44MB FDD
- Keytronic PS-2 K/B for Win95
- 4 GB Quantum Ultra Wide SCSI Hard Disk
- Microsoft Ergonomic Mouse
- Adaptec Ultra Wide SCSI Controller
- 24 X Toshiba IDE CD-ROM
- ATI Xpert@work/4MB SGRAM AGP
- Intel 10/100Base TX PCI Ethernet
- Monitor Sold Separately

P-II-233MMX...$1,970

P-II-266MMX...$2,090

P-II-300MMX...$2,200

VIDEO CARD

Trident 9680 PCI MPEG W/1MB $23
S3Virge 3D MPEG W/2MB $37.50

ATI

3D Xpression+ PC2TV PCI 2MB/4MB DRAM ..... $90/$112
3D PRO TURBO PC2TV 4MB/8MB GRAM ..... $4125/$163
Xpert @ WORK AGP 4MB/8MB ..... $188/$225

DIAMOND

Stealth 64 PCI 765 1MB/2MB PEG $46/54
Stealth 3D 2000 PCI 2MB/4MB EDO PEG $58/68
Stealth 3D 2000 PCI 2MB/4MB VRAM $128/148
Fire GL 1000 8MB $189
Viper V330 AGP 4MB $174

MATROX

Millennium II 4MB (Bulk) $170
Millennium II 8MB (Bulk) $278
Mystique 220 4MB SGRAM (Retail) $130

NUMBER 9

Imagine 128 S2E PCI 4MB $255
Imagine 128 Series II PCI 4MB $445

TAPE BACKUP DRIVE

HP / COLORADO

C1534 4mm DAT 2GB SCSI Internal $545
C1536 4mm DAT 2-4GB SCSI Internal $593
C1599 4mm DAT 8GB SCSI Internal $775
T3000 3.2GB $180
T4000 4.0GB TRAVAN Internal $373

IOMEGA

ZIP Drive (100MB) IDE Internal $96
ZIP Drive (100MB) SCSI Internal $150
ZIP Drive (100MB) Parallel Port $135
JAZ Drive 1GB SCSI Int/Ext ..... $295/$395

FAX/MODEM

US Robotics

Sportster V.34 33.6K Internal w/o VOICE ..... $75/$95
Sportster 56K Internal w/o VOICE (Buck) ..... $105/$145
Sportster 56K External w/o VOICE (Retail) ..... $187/$217

JATON

33.6k Internal w VOICE $45
56K Internal w VOICE $65

Diamond

56K Supramax (V.90) $67

CONTROLLERS

ADAPTEC

2940 U SCSI PCI $158
2940 UW SCSI PCI $178
3940 SCSI PCI $275
3940 W SCSI PCI $455

MULTIMEDIA

SOUND CARD

Sound Blaster 16PNP $35
Sound Blaster 64 AWE Value Pak $65
ESS 1868 PNP 16 BIT Sound Card $12
YAMAHA OPL3 16 BIT Sound Card $12

CD-ROM

Panasonic 24/x IDE CD-ROM $58
Toshiba 24x IDE CD-ROM $64
NEC 24x SCSI CD-ROM $107
Panasonic 24x SCSI CD-ROM $89

SPEAKER

Altec Lansing ACS45 ..... $70
Altec Lansing ACS52 ..... $75

STORAGE SOLUTION

Parallel Port Storage Subsystem

ParaDisk 250 ..... CALL
ParaDisk 350 ..... CALL
Par Drive 525 ..... CALL
Sound Track 525-Playing Multi-Media ..... CALL
Par Station ..... CALL

SCSI Storage Subsystem

7 - Drive Bay Disk Array Chassis ..... CALL
8 - Drive Bay Disk Array Chassis ..... CALL
10- Drive Bay Disk Array Chassis ..... CALL
14- Drive Bay Server/ Disk Array Chassis ..... CALL
16- Drive Bay Server/ Disk Array Chassis ..... CALL

PCMCIA STORAGE SUBSYSTEM

CarDisk 250/ CarDisk 350 ..... CALL
CarDrive 525 ..... CALL
CarStation ..... CALL

MONITOR

SHAMROCK

SRC - 1407 14" 1024 x 768 0.28 NI, Digital $125
SRC - 1502L 15" 1280 x 1024 0.28 NI, Digital $175
SRC - 703LD 17" 1280 x 1024 0.28 NI, Digital $305
SRC - 705 17" 1600 x 1280 0.26 NI, Digital $355

VIEWSONIC

E641 14" 1024 x 768 0.28 NI $202
17EA 17" 1280 x 1024 0.28 NI, PnP $557
17PS 17" 1600 x 1280 0.25NI, PnP TCO $655
G771 17" 1280 x 1024 0.27 NI $435
GT700 17" 1280 x 1024 0.25 ..... $650
P775 17" 1600 x 1280 0.25 NI $670
G810 21" 1600 x 1280 0.25 ..... $1,359
P810 21" 1600 x 1280 0.25 ..... $1,293
P815 21" 1600 x 1280 0.25 NI $1,440

HARD DRIVES

FUJITSU

M3026AT 2.6GB IDE $170
M3035AT 3.5GB IDE $205
M3043AT 4.3GB IDE $255
M2954QYF 4GB 512K Ultra-Wide-SCSI $619
M2954SYU 4GB 512K SCSI-2, 7200rpm $520
M2949QYF 9GB 512K Ultra-Wide-SCSI $850
M2949SYU 9GB 512K SCSI $860

SEAGATE

ST34572N 4.5GB Ultra SCSI-2 ..... $562
ST34572W 4.5GB Ultra Wide SCSI-2 ..... $570

MAXTOR

4.3GB Ultra-DMA IDE $255
6.4GB Ultra-DMA IDE $340
8.4GB Ultra-DMA IDE $355

WESTERN DIGITAL

WDC-AC34300 4.3GB IDE DMA $255
WDC-AC35100 5.1GB IDE DMA $300
WDC-AC36400 6.4GB IDE DMA $359
WDC-E/1360 4.3GB Ultra SCSI $545
WDC-E4360 4.3GB Ultra-Wide SCSI $545

QUANTUM

QM34320STA 4GB 28K IDE $270
QM36480STA 6.4GB 128K IDE 5400rpm $355
QM33240STS 3.2GB 128K Ultra SCSI $279
QM34320STS 4.3GB 128K Ultra SCSI $319
Atlar-24550W 4.5GB 512K UW-SCSI $569
VK45W 4.5GB Wide SCSI $599
QM36480STS 6.4GB 128K Ultra-SCSI $409

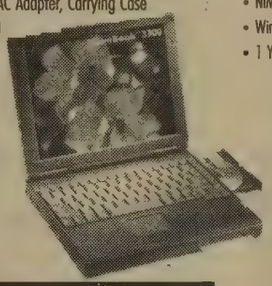
LINDEN MICRO TECH
459 Montague Expwy, Milpitas, CA 95035
www.linden.com email: sales@linden.com
Tel: (408)262-8200
Fax: (408)262-8476
Hours: M-F 9am-6pm

VISA MASTER DISCOVER

LINDEN MICRO TECH
— Your Notebook Solution
Visit www.linden.com for more information

ChemBook 3300

- Intel CPU up to Pentium 233MMX technology
- 32MB EDO DRAM Onboard (Up to 96MB), 256KB Pipeline Burst Cache
- 64-bit PCI Graphics Engine, 2MB EDO Video RAM
- Built-In 20X CD-ROM, 1.44MB 3-mode FDD and 2.5" HDD
- 12.1" TFT SVGA LCD Resolution up to 800 x 600 x 16.8M, Supports External CRT Resolution up to 1280 x 1024 x 256
- 16-bit Full Duplex Stereo Sound System w/Stereo Speakers
- Win 95 Keyboard and Touchpad Mouse
- One USB, Serial, Parallel, External CRT, PS/2 Keyboard/Mouse, Fast Infrared Port
- 2 x type II or 1 x type III slots, Supports CardBus / Zoomed Video Port
- NiMH Battery (Optional Li-Ion Battery), AC Adapter, Carrying Case
- Windows 95 Release II w/Manual & CD
- 1 Year Parts & 3 Years Labor Warranty



Starting Price:
$1,530

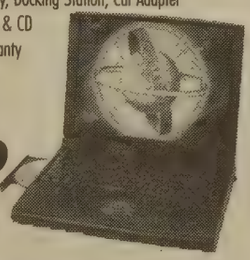
6100

- Intel CPU up to Pentium 233MMX technology
- 16MB EDO RAM expandable to 128MB, 512K Pipeline Burst Cache
- 64-bit C&T 65555 PCI Bus Controller, 2MB EDO Video RAM
- Removable 2.5" HDD,1.44MB FDD (exchange for 2nd Battery)
- Built-in 20x speed or Higher CD-ROM
- 12.1" TFT SVGA LCD Resolution up to 800 x 600 x 16.8M, External CRT: Support up to 1280*1024, 256 colors
- ESS 1879 3D Full Duplex sound System w/Stereo Speakers & Microphone
- Win 95 Keyboard and Touchpad Mouse
- One Serial, Parallel, External CRT, PS/2 Keyboard/Mouse, Game/MIDI Port
- 2 type II/1 type III Slots(One slot support Zoomed Video port)
- NiMH Battery (Optional Li-Ion Battery), AC Adapter, Carrying Case
- Windows 95 Release II w/Manual & CD
- 1 Year Parts & 3 Years Labor Warranty

Starting Price:
$1,499

6280

- Intel CPU Up To Pentium 233MMX Technology
- 16MB EDO RAM expandable to 72MB, 512K Pipeline Burst Cache
- PCI EIDE Controller, 64-Bit 2MB EDO PCI Video RAM
- Removable 1.44 MB FDD (exchange for 2nd Battery), 2.5" HDD
- Built-in 20X Speed CD-ROM, 2 Stereo Speakers & 1 Microphone
- 12.1" Dual Scan or 12.1" Active TFT 800 x 600 SVGA Display
- 16-Bit Stereo Sound System w/1MB Wave Table Synthesizer ROM
- Win 95 Keyboard and Touchpad Mouse
- One Serial, Parallel, Ext. CRT, Docking Station, KB, 1 Game, and TV Port
- 3 Type II PCMCIA Slots
- NiMH Battery (Optional Li-Ion Battery), AC Adapter, Carrying Case
- Optional MPEG Module, 2nd Battery, Docking Station, Car Adapter
- Windows 95 Release II w/Manual & CD
- 1 Year Parts & 3 Years Labor Warranty



Starting Price:
$1,610

6600

- Intel Pentium , Pentium Tillamook , and Pentium II Processor
- 32MB SRAM Expandable to 128MB
- Synchronous Pipeline Burst 512 KB Cache on 1MM
- Removable 2.5" Hard Disk Drive, Ultra DMA for high-speed access
- 3.5" 1.44MB FDD exchangeable with LS-120/ZIP/2nd Battery
- Built-in 5.25" 24x CD-ROM or DVD-ROM Drive
- 4MB Video Memory
- 64-bit Hardware GUI Accelerator 3D Graphics Engine
- 14.1" Active TFT 1024x768 XGA Display, CRT: Support up to 1024x768, 16M Colors
- Build-in Wave Table Stereo; support 3D Audio
- 1 Built-in Microphone and 2 Built-in Speakers
- 2 Type II / 1 Type III PCMCIA Slots
- Zoom-Video Port & Card Bus Support
- Win 95 Keyboard and Touchpad Mouse
- 1 Serial, 1 Parallel, 1 PS/2 , and 1 USB Ports
- 1 TV-Out Microphone-in, Audio-in/out Jack
- Rechargeable Lithium-Ion Battery
- Windows 95 Release II w/Manual & CD
- 1 Year Parts & 3 Years Labor Warranty

Starting Price:
Pentium $2,150
Pentium II $2,610

Monthly Special

6280: 233MHz Pentium MMX, 32MB RAM, 3.0GB Hard Drive, 56K Fax Modem
Special Price: $1,690
Regular Price: $1,720

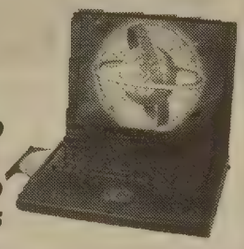
6600: 233MHz Pentium MMX, 32MB RAM, 3.0GB Hard Drive, 56K Fax Modem
Special Price: $2,220
Regular Price: $2,270

8260: 233MHz Pentium MMX, 32MB RAM, 3.0GB Hard Drive, 56K Fax Modem
Special Price: $2,680
Regular Price: $2,740

8260

- Intel Pentium , Pentium Tillamook , and Pentium II Processor
- 32MB SRAM Expandable to 128MB
- 512 KB L2 Pipeline Burst Synchronous Cache
- Removable 2.5" Hard Disk Drive
- 3.5" 1.44MB FDD exchangeable with LS-120 Drive/Iomega Zip Drive/2nd HDD
- Built-in 5.25" 24x CD-ROM or DVD-ROM Drive
- 4MB SRAM Video Memory
- 64-bit Hardware GUI Accelerator 3D Graphics Engine
- 15.1" Active Matrix 1024x768 XGA Display, CRT: Support up to 1024x768, 16M Colors
- 3D Stereo Enhancement Sound System
- 1 Built-in Microphone and 2 Built-in Speakers
- Win 95 Keyboard and Touchpad Mouse
- 2 PCMCIA type II or 1 Type III Slot
- Zoom-Video Port & Card Bus Support
- 1 S-Video Jack for TV Output and 1 RCA jack for Video Input
- Rechargeable 75.6W Lithium-Ion Battery
- Windows 95 Release II w/Manual and CD
- 1 Year Parts and 3 Years Labor Warranty

Starting Price:
Pentium $2,630
Pentium (DVD) $2,910
Pentium II $3,080
Pentium II (DVD) $3,365



NOTEBOOK ACCESSORIES

PCMCIA 33.6 Fax Modem $65.00
PCMCIA 56K Fax Modem $80.00
PCMCIA Ethernet Card (10BaseT) $70.00

3.0GB Notebook HDD $250.00
4.0GB Notebook HDD $380.00
5.0GB Notebook HDD $620.00

LINDEN MICRO TECH (408)262-8200
459 Montague Expwy, Milpitas, CA 95035
www.linden.com email: sales@linden.com
Fax: (408)262-8476
Hours: M-F 9am-6pm

Digital Animation

A Special-Effects Budget Boon | By Herb Mendelsohn

In *Titanic*, over 1000 actors never got a day's pay for diving to their icy deaths amongst the icebergs (mysteriously situated in the waters off Ensenada, Mexico). What appear to be bouncing and drowning people are really the newest rage in cost-effective casting—"Anitrons," sometimes called "Avatars." These computer generated digital extras populate crowd scenes in more and more blockbusters enabling directors and screenwriters to hatch plot lines which put hordes in harm's way without paying danger penalties to the Screen Actors' Guild.

PHOTO: MERIE W. WALLACE © 1997 PARAMOUNT PICTURES AND TWENTIETH CENTURY FOX. ALL RIGHTS RESERVED.

Digital extras jump to their icy death in Paramount Pictures/20th Century Fox's *Titanic*.

Computer generated animation saves Hollywood time, money—and now, lives. It performs redundant tasks, freeing animators to be more creative. Computers now can make films look much more expensive. To produce an epic like *Ben Hur* today without the aid of computer generated Romans might well be more expensive than the two hundred million dollars *Titanic* reportedly cost.

At the recent World Animation Celebration in Pasadena, Erik Armstrong, who created the digital snake that ate and regurgitated John Voight in *Anaconda*, said "Computer graphics will evolve and bring costs down faster than any other element in filmmaking." The feeling exists in the animation world that a filmmaker with a great story and a large enough hard drive will soon be able to produce a feature film at home.

The Advantages Of Animation

Unlike most live action films, each frame of animation is composed of a series of layers. Many of those layers have recurring constants, which make animation truly adaptable to computer applications. Characters will talk standing in front of a background for a few seconds, we all remember the talking Fred and Wilma heads of our *Flintstones* youth. The background can now be copied and pasted from frame to frame; in the old days, artists had to re-draw the same background over and over.

Film gives us images at 24 frames per second. There are usually four constants in each animated film: the background, the foreground, the atmosphere, and the focal point. Thus there are as many as half-a-million chances for recurring elements in an animated feature. Computer programs are getting better and better at helping to organize and optimize the impact of those half-million elements.

Only in animation does the director have so much control of where the audience's eye will travel. Animated film tries to duplicate life to a higher degree of realism than in TV. In film, audiences won't buy Fred and Wilma Flintstone talking in profile with only their lower jaws wagging.

Of course, that may change when *South Park*, Comedy Central's smash success, makes its silver screen debut. The low-tech, or even anti-tech, look of *South Park* has been completely duplicated on computer. A show which looks like some high school dropout's paper cuttings has turned out to be, thanks to some sophisticated computer graphics, one of the most profitable on television. It is a case of anti-tech being dependent on high-tech.

Expert Perspective

I was fortunate to be able to interview one of the prime creative forces in computer generated animation, Ms. Sari Gennis.

When we talked, she had just started on Twentieth Century Fox's second animated feature, *Planet Ice*, as visual effects supervisor. "After *Anastasia*, which was done as a traditionally animated film, Fox decided to jump into the world of computer animation with a sci-fi epic," said Gennis. "The creation of alien worlds for the sci-fi settings of *Planet Ice* is a perfect use of CGI (computer graphic imagery), although throughout the process there will still be a great deal of hand generated art.

"It is an incredibly exciting project for me personally because it's going to be a melding of the worlds of traditional animation, visual effects, and computer graphics. Up to now, I always felt like I was bouncing around between those areas. Computer animation is a relatively new field, and everyone has a different opinion of the best skills one needs coming into it.

"I've always felt that my traditional animation and art background, with all the caricature and science of motion skills, gives me something that few other visual effects artists have—and here is the perfect opportunity to test that. *Planet Ice* will use everything I've learned in my career up until now *and* challenge me to grow and learn new technologies and software."

Tad Gielow, Vice President of CGI (Computer Graphic Imaging) Development at Warner Bros. Feature Animation, echoes her views. He told me that Warner's experience was that they could teach a visual artist computer animating pro-

grams in about six months, but trying to teach a computer programmer to draw took a minimum of six years!

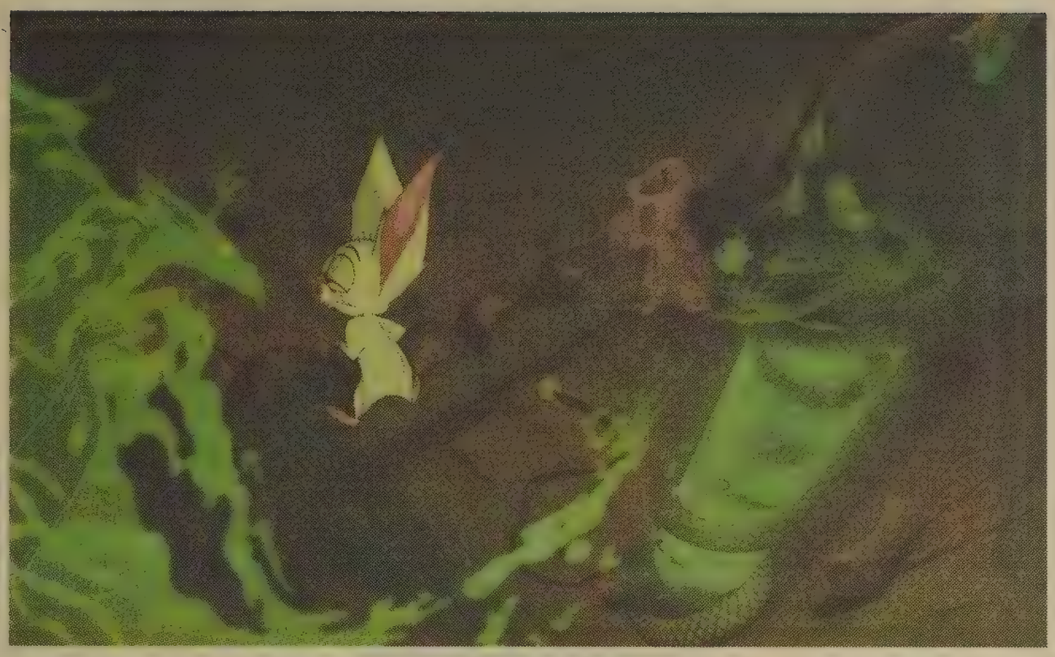
Ms. Gennis has seen the use of computers grow through her twenty years in animation. She told me that computers are good for many things, "but it is important to choose wisely. On *James And The Giant Peach*, we had hundreds of flying seagulls. CGI was very good for that; it saved lots of time. But the water they were flying over was very difficult, and we ended up drawing the interactive splashes by hand.

"Organic stuff is still very difficult for the computer," concluded Ms. Gennis, "and of course human animation is still the Holy Grail."

When I asked Ms. Gennis if computers saved money, she answered, "Everyone would like you to think so, but it really depends on what you're trying to do. For example, early on, Disney put Pocahontas' canoe on computer so that we could move it around and put characters inside easily. That saved time and repetitious drawing. Now because computers can do more, people design more things in."

She recalled that when she was first introduced to designing on the Mac she was amazed, and still thinks that Photoshop and Painter are magic. Yet she is still sometimes frustrated by the long time it takes to animate something on the computer, compared to just sitting down and drawing it. "I'm never going to let go of my pencil!" she said emphatically.

Ms. Gennis' main complaint about CGI is one I've heard echoed in many other quarters of the animation industry: "The problem is working with the software to make it intuitive. It is getting better, but it took a long time. When you are a slave to the software, you can't flow. There are all kinds of cheats you do when you draw that you can't do in the computer, as it takes everything so literally. But it's about trying to do things which haven't been done before—that's where computers excite my creativity!"



© 1998 FOX. ALL RIGHTS RESERVED.

© 1998 WARNER BROS. ALL RIGHTS RESERVED.

Top: Rasputin's reliquary (shown here with Rasputin's sidekick, Bartok the bat) was drawn traditionally for position, then modeled on CGI for stunning 3D effects in Twentieth Century Fox's *Anastasia*. Bottom: computer generated 3D effects bring the inanimate objects of King Arthur's forbidden forest to life in Warner Bros. *Quest For Camelot*.

Animation At Warner Bros.

Wendy Aylsworth, the Vice President of Technology for Warner Bros. Feature Animation, kindly guided me through more than two-hundred workstations at their new animation center in Glendale. Most artists' stations were equipped with both a $35,000 Silicon Graphics system and a $15,000–$20,000 PC system, plus two hi-resolution monitors. Warner Bros. Feature Animation also has about 150 Macs that they use for production tracking, and another 150 Macs for office management. When I was there all forces were mobilized to put the finishing touches on their past two year's work, *Quest For Camelot*. This is Warner Bros.' first fully animated feature in 75 years of film making.

Quest For Camelot boasts an all-star cast of Sir John Gielgud as Merlin, Jane Seymour as Julienna, Pierce Brosnan as King Arthur, Eric Idle and Don Rickles as the two-headed Dinosaur, and the super-star of animated voices, Frank Welker, as the seeing-eye Falcon.

"CGI is used extensively in the forbidden forest scene of *Quest*," said Aylsworth. "Rocks come to life; the fog and a carriage are all computer generated."

There's also a productivity gain. "In traditional hand-painted animation, one cel takes about twenty minutes to paint; with computers and commercial software, we've reduced that time to under eight minutes."

We visited Nancy Finley, who is a "Digital Cel Painter." She has formal art training, but has migrated to computer animation, drawing on a pad with a digital stylus. She watches her work on two Sony monitors, rotating the model of what she is working on in her left monitor, while doing close-ups in her right. "I concentrate on the eyes," she explained. "They are the key to the character; we like to get them right."

Meanwhile, in another part of the building they're working on Warner Bros.' next animated feature, *Iron Giant*, which will be the first 2D animated film with a lead character done totally in 3D. Tad Gielow and his staff are in uncharted waters. "We've tripled our staff and have 39 computer animators working on the model for *Iron Giant*," he said.

We walked through a research library with an Internet terminal for collecting images and seeking historical inspiration. Next I saw the virtual training center where 16 stations are available so recent graduates and new Warner

Corporate POs Welcome • www.KINGSTARUSA.com
SYSTEM SUPER SALE!

INTEL PENTIUM® II 440BX BAREBONE SYSTEMS

Box SE 440BX PAO/RA Board
PII Processor Supports Highest 233MHz to 400MHz CPU
Intel 82440BXPA AGPset Supports Both 66MHz to 100MHz
Universal Serial BUS (USB)
64MB SDRAM to 384MB ECC Memory
1.44MB Floppy Drive
ATX Mid Tower Case w/Fan

Pentium® II 350MHz $979
Pentium® II 400MHz $1150

INTEL PENTIUM® II 440LX BAREBONE SYSTEMS

PII 233MHz to 333MHz 440LX Chipset
AGP Overview Set
64MB SDRAM 10NS
1.44MB Floppy Drive
ATX Mid Tower Case w/250W Power
Win95 keyboard PS/2

Pentium® II 233MHz $479
Pentium® II 266MHz $519
Pentium® II 300MHz $649
Pentium® II 333MHz $839

FAMILY SYSTEM SPECIALS

• Intel TX P5 Motherboard w/512K Cache
• P5 Motherboard w/512K Cache
• PCI EIDE High Speed I/O Controller
• 16MB 60ns EDO RAM
• 1.7GB Ultra DMA Hard Drive
• 1.44MB Floppy Drive
• PCI 64-Bit SVGA Card w/1MB (to 2MB)
• 104-Key Win 95 Keyboard
• Mini Tower Case w/230W Power Supply

Pentium® 166MHz $399

Intel® 200MMX/233MMX . $409/429
AMD K6-200/233MHz..... 399/409
AMD K6-266/300 ..... 450/499

PLEASE SEE FULL PAGE AD ON PAGE 9

High Performance Multimedia Notebook

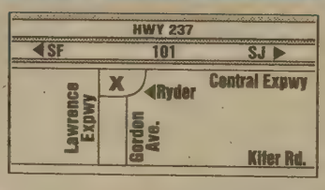
• ChemBook #3300
• 12.1"/TFT Scan
• 2.1GB Hard Drive/64-Bit Video Card with 2MB
• 32MB RAM up to 96MB
• Removable/Built-in 20X CD-ROM
• 2xType II or 1xType III PCMCIA/Card
• 1.44MB Removable
• 16-Bit Stereo/3D Sound System with Hardware WaveTable
• Infrared FIR/RCA Jack for Video In/Out/Dual USB Port/NiMH Battery

12.1" MATRIX	
166MMX	1429
200MMX	1489
233MMX	1595

Optional:
3.1GB ..... Add $65
64MB ..... Add $199
33,600 Fax Modem..... Add $69
56K Fax Modem..... Add $99
140T Docking Station ..... Call

KINGSTAR COMPUTERS, INC.

SANTA CLARA
3081 Lawrence Expwy • Santa Clara, CA 95051
TEL: (408) 736-8590 • FAX: (408) 736-4151
Since 1986
MON-FRI 8:30-6:00, Sat/Sun by Appt.
www.kingstarusa.com
Prices and Company Policy Subject to Change W/O Notice. Not Responsible for Typographic Errors. Prices Reflect Cash Price Only.



Bros. employees can continue their computer art training.

The center was also hooked up live via a bi-directional video feed to educational sites around the country. High school and college students in arts programs in East LA, San Jose, and Birmingham, AL, tune in for a session with the Warner professionals.

Other Developments

Disney has just announced its first kids-only site, D-Blast (*disneyblast.com*), an online service for kids featuring the latest inside scoop on Disney films, "D-Mail," and much more. The service is free to MSN subscribers but $5.95/month to others.

The animation industry as a whole is working fast and furious to entice young minds into its fold. At the second annual World Animation Festival held recently in Pasadena, 1,000 kids from all over the world gathered to produce an animated film in a marathon three days.

The theme of the film was cultural diversity. Teams of 12 students sat around tables in the great exposition hall of the Pasadena convention center and thought up a thirty-second vignette having to do with diversity. They then assigned themselves tasks in order to produce the 720 multi-layered cels it takes to convey a half-minute's idea. The 80-odd half-minute segments are then strung together, producing a 45-minute film that's premiered on the big screen at the conclusion of the Animated Film Festival.

The entertainment industry is spreading out away from Hollywood and buying computers to take with it. Fox studios in Phoenix, AZ, where *Anastasia* was created, purchased $100 million worth of computer technology. Disney did the same creating a studio in Orlando, FL, where *Mulan* was just finished, marking the first time a Disney animated film was not made in Burbank. Industrial Light and Magic has long been a computer innovator and benefits from its proximity to the Silicon Valley.

The latest frontier for computers in animation is stop-motion technology. Actors wear body suits cabled through motion sensors creating digital input recording all aspects of three-dimensional movement. This data can be rendered into several media.

The jury is still out as to whether stop-motion saves time or money— data management is very complicated, and it is impossible to make changes after the actors have gone home. Improvision's production of *Sinbad*, which is being done in stop-motion technology, has greatly reduced the time actors are needed. Michelle Beauchamps, the body behind Meg Ryan's voice in *Anastasia* and recently finished a stint in a body suit for *Sinbad*, tells me, "I spent two years working for the Disney animators in *Hercules*, we finished *Sinbad* in just two months!"

Who's Driving Who?

Is technology enabling art, or are artistic visionaries driving the need to create new hardware and software? The answer is yes.

Scripts are being produced that could never have been made without digital technologies, and Anitrons, Avatars, and digital extras have been invented to save actors from life-threatening stunts.

Sari Gennis sums it up well: "I believe a fine mix of computer tools and hand crafted painting leads us to an artistic film. Computers aid my creativity; they have opened my mind to possibilities I might not have invented without them." ◆

Copyright © 1998 by Herb Mendelsohn. All rights reserved.

Resources:

Warner Bros. Feature Animation
www.quest4camelot.com

Animation Magazine
www.Animag.com

Disney's Online Magazine for kids ($5.95/mo. Ages 3–12)
www.disneyblast.com

• COMPLETE & EXCELLENT SERVICE • LOWEST PRICES

TXPRO POWER SYSTEM

- TXPro Motherboard w/512K PLBC
- Support USB & U-DMA w/ IO (16550)
- Integrated 64-Bit SVGA & 16-Bit Sound
- 32MB 72-Pin EDO Ram • CPU Fan
- 2.1GB U-DMA HD • 1.44MB FD
- 3 Button Mouse • 104 Keyboard
- 24X CD-Rom • 80W Amp. Speakers
- Mini Tower w/ 230W Power Supply
- Monitor Not Included

intel.
P166MMX.....$420
P200MMX.....430
P233MMX.....455

AMD
K6-200.....$395
K6-233.....410
K6-266.....480
K6-300.....550

Cyrix
M2-200.....$390
M2-233.....400
M2-266.....460
M2-300.....540

"HOME" MULTIMEDIA INTERNET SYSTEM

- INTEL® 430TX Chipset w/512K PLBC
- Support U-DMA & USB w/ IO (16550)
- Mini Tower Case w/ 230 Watt PS
- **32MB (4X64) SDRAM** • CPU Fan
- Samsung 3.2GB Ultra-DMA IDE HD
- Trident 9685 Chip, TVOUT, PCI w/ 2M
- Rockwell 56K w/Voice • 1.44MB FD
- 3 Button Mouse • Mitsumi 104 KB
- 24X CDRom • 16Bit Sound • 80W SPK
- **Win95 (OSR 2.5)** • Internet Explore 4.0

AMD K6
K6-200.....$575
K6-233.....590
K6-266.....645
K6-300.....725

intel.
P-166MMX....$595
P-200MMX.....610
P-233MMX.....640

Cyrix
M2-200.....$570
M2-233.....590
M2-266.....650
M2-300.....715

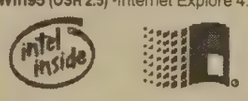
"PRO" MULTIMEDIA INTERNET SYSTEM

- Pentium® II 440LX AGP Motherboard
- ATX Mid Tower Case w/ 235W PS
- **32 MB (4X64) SDRAM** • CPU Fan
- Maxtor 4.3GB Utra-DMA IDE HD
- Diamond Steath 3D 4000 4M AGP
- Rockwell 56K Flex Int. F/M w/Voice
- PS2 Net Mouse • Mitsumi PS2 KB
- Yamaha 16-Bit 3D Sound • 1.44 FD
- 80W Amp. SPK • 24X CD-Rom
- **Win95 (OSR 2.5)** •Internet Explore 4.0

Pentium® Celeron 266.....$790
Pentium® II 233.....835
Pentium® II 266.....895
Pentium® II 300.....1020
Pentium® II 333.....1140

"LEX" MUTIMEDIA INTERNET SYSTEM

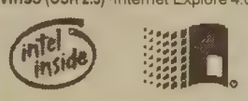
- Pentium® II 440BX AGP Motherboard
- ATX Mid Tower Case w/ 235W PS
- **32MB (4X64)100 MHZ BUS SDRAM**
- Maxtor 4.3GB Utra-DMA IDE HD
- Matrox Productiva G100 4MB AGP
- Rockwell 56K Flex Int. F/M w/Voice
- 1.44MB FD • CPU Cooling Fan
- PS2 Net Mouse • Mitsumi PS2 KB
- Yamaha 16-Bit 3D Sound Card
- 80W Amp. SPK • 32X CD-Rom
- **Win95 (OSR 2.5)** •Internet Explore 4.0



Pentium® II 350.....$1275
Pentium® II 400.....1540

PRO 2000 SERIES

- INTEL® SEATTLE 440BX AGPset
- •Integrated 64-bit PCI Sound Card
- **64MB (8X64)100 MHZ BUS SDRAM**
- CPU Heatsink & Cooling Fan
- ATX Mid Tower Case w/ 235W PS
- Maxtor 6.4GB Ultra-DMA IDE HD
- Diamond Viper V330 4MB AGP
- Supra Max 56K V.90 PCI Voice Int.
- Keytronic 104 PS2 Keyboard
- Microsoft PS2 Mouse • 1.44MB FD
- Hercules 300W SPK • 32X CD-Rom
- **Win95 (OSR 2.5)** •Internet Explore 4.0



Pentium® II 350.....$1485
Pentium® II 400.....1750

ALL COMPLETE SYSTEMS CARRY 1-YEAR PART & LIFETIME LABOR WARRANTY

SPECIAL
Mitsumi CD-Writer 2X8 IDE
Adaptec Easy CD Creater
Adaptec Direct CD
$275

MMX UPGRADE KIT

- TXPro Motherboard w/512K PLBC
- Support USB, PS2 Mouse & Utra-DMA
- Intergrated 16-Bit Sound • 32MB EDO Ram
- Trident 9685 PCI w/2MB Exp. to 4MB
- **One Year Warranty**

AMD K6-200.....$215
AMD K6-233.....225
AMD K6-266.....310
Pentium® 166MMX.....230
Pentium® 200MMX.....235
Pentium® 233MMX.....260

SPECIAL
TXPro Motherboard 512K U-DMA MMX
Integrated 64-Bit SVGA & 16-Bit Sound
$65

PII UPGRADE KIT

- P2 Mainboard, Intel® 440LX/BX AGP
- ATX Mid Tower Case w. 235W PS
- Diamond Stealth 4000, AGP, 4M
- 32MB SDRAM • CPU Cooling Fan
- **One Year Warranty**

Pentium® II 233.....$425
Pentium® II 266.....495
Pentium® II 300.....615
Pentium® II 333.....650
Pentium® II 350.....875
Pentium® II 400.....1120

MOTHERBOARDS

- TXPro, 512K, U-DMA, MMX.....$55
- TXPro, 512K, U-DMA, MMX w/ Sound.....60
- **SIS 1M Cache, U-DMA, AGP w/ Sound..75**
- Intel® 430TX, 512K, MMX.....65
- Intel® 440LX,PII,AGP,ATX.....89
- A-TREND PII, 440LX, AGP, ATX.....99
- **A-TREND PII, 440BX, AGP, ATX.....135**

ASUS
- SP97-V, 512K w/64-Bit SVGA.....$78
- **TXP4, U-DMA, 512K.....99**
- TXP4-X, U-DMA, 512K, ATX.....105
- P-II LX97, 440LX, AGP, ATX.....129
- P-II LX97-S, AGP w/SCSI, ATX.....198
- P-II LX97D, AGP, Dual w/SCSI, ATX.....238
- **P2BX, 440BX, AGP, ATX.....168**

TYAN
- Tomcat VI 430TX, Dual, AT.....$165
- Titan Turbo II 430TX, AT.....92
- **Titan Turbo II 430TX, ATX.....93**
- Tiger PII 440LX, AGP, ATX.....135
- Tiger PII 440LX, AGP, Dual.....235
- Thunder II 440LX, AGP, Dual, ATX w/ 3940UW SCSI.....378
- TSUNAMI 440BX, AGP,ATX.....185

ABIT
- PX5, 430TX, 512K, AT.....$75
- AX5, 430TX, 512K, ATX.....90
- LX6, P-II, 440LX, ATX.....115
- BX6, PII, 440BX, ATX.....155

intel.
- Anchorage, 430TX, ATX w/Sound.....$110
- Atlanta P-II, 440LX, ATX.....155
- Atlanta P-II, 440LX w/Sound.....158
- Dakota Dual P-II, 440LX, ATX.....455
- **Seattle PII, 440BX w/ Sound.....215**

FAX & MODEMS

- Rockwell 33.6 w/ Voice.....$38
- Rockwell 56K w/ Voice.....58
- Supra Express 33.6 w/Voice.....55
- Supra Max 56K V.90 PCI w/ Voice.....65

U.S. Robotics
- USR 56K w/o Voice.....$89
- USR 56K w/ Voice.....95
- **USR 56K V.90 w/Voice.....119**

CPUs

- Pentium® 166/200MMX.....$95/102
- Pentium® 233MMX.....125
- **Celeron 266 w/Fan.....157**
- Pentium® II 233/266.....188/239
- Pentium® II 300/333.....359/479
- Pentium® II 350/400.....585/810
- AMD K6-200/233.....65/85
- AMD K6-266.....135
- AMD K6-300.....215
- Cyrix M2-P200/233.....65/75
- Cyrix M2-P266/300.....135/225

MEMORY

- 8MB/16MB EDO.....$10/22
- 32MB (8X32) EDO.....35
- 16MB (2X64) SDRAM.....25
- 32MB (4X64) SDRAM.....39
- **64MB (8X64) SDRAM.....89**
- 128MB (16X64) SDRAM.....168
- 32MB SDRAM (100 MHZ BUS).....55
- 64MB SDRAM (100 MHZ BUS).....110
- 128MB SDRAM (100 MHZ BUS).....198

MONITORS

- Impression 14" 28.....$130
- **Impression 15" .28.....165**
- Impression 17" 27.....315
- Impression 17" 25.....455
- Proton 17" 27.....275

ViewSonic
- E641 14" 28.....$165
- E655 15" 28.....230
- E771 17" 27.....345
- P775 17" 25.....485
- G810 20" 25.....965
- P810 21" 25.....1075

MAG
- DJ530 15" 28.....$210
- DJ700 17" 26.....390
- DX702E 17" 28.....370

SONY
- 100ES 15" 25.....$285
- **200ES 17" .25.....515**
- 200GS 17" 25.....580
- 400PS 19" 25.....925
- 20SE2T 20" 25.....1110

NEC
- A500 15" 28.....$265
- A700 17" 28.....465
- E1100 21" 28.....1030

HARD DRIVES

- SAMSUNG 2.1GB U-DMA.....$119
- SAMSUNG 3.2GB U-DMA.....130
- IBM 4.3GB U-DMA.....CALL
- IBM 6.4GB U-DMA.....225
- IBM 8.4GB U-DMA.....305
- IBM 4.3GB UW SCSI.....270

Quantum
- 2.1GB U-DMA IDE.....$130
- 3.2GB U-DMA IDE.....145
- 4.3GB U-DMA IDE.....169
- 6.4GB U-DMA IDE.....225
- 8.4GB U-DMA IDE.....320
- 12GB Bigfoot U-DMA IDE.....325
- 2.2GB UW SCSI.....175
- 4.5GB UW-SCSI.....335
- ATLAS II 9.1GB UW-SCSI.....685

Seagate
- 2.1GB U-DMA IDE.....$125
- 4.3GB U-DMA IDE.....179
- Barracuda 4 5GB UW.....455
- Barracuda 9GB UW.....699
- Cheetah 4.5 UW.....535
- Cheetah 9GB UW.....855

FUJITSU
- 3.2GB U-DMA IDE.....$140
- 4.3GB U-DMA IDE.....165
- 6.4GB U-DMA IDE.....215
- 4.5GB UW-SCSI.....320

Western Digital
- 2.0GB Utra-DMA IDE.....$125
- 2.5GB Utra-DMA IDE.....135
- 3.2GB Utra-DMA IDE.....150
- 4.3GB Utra-DMA IDE.....170
- 6.4GB Utra-DMA IDE.....220
- 4.3GB UW SCSI.....445

Maxtor
- 2.1GB Utra-DMA IDE.....$125
- 3.2GB Utra-Dma IDE.....140
- **4.3GB Utra-DMA IDE.....155**
- 5.2GB Utra-DMA IDE.....185
- 6.4GB Utra-DMA IDE.....205
- 8.4GB Utra-DMA IDE.....270
- 11.5GB Utra-DMA IDE.....380

PCI / AGP VIDEO CARDS

- Trident 9685 2/4M.....$35/50
- Trident 9750 AGP w/4M SGRam.....55
- S3 Virge 3D 2M/4M/4M AGP.....35/50/60
- STB Velocity 128 4M PCI/AGP.....115

DIAMOND MULTIMEDIA
- Steath 2000 Pro 2/4M Dram.....$50/60
- Trident 3000 2M/4M Vram.....90/130
- Stealth 4000 w/4M AGP.....65
- **Viper V330 Riva 128 PCI/AGP.....85**
- Fire GL Pro 1000 4/8M AGP.....135/165
- Monster 3D 4/8M.....115/199

ATI
- ATI Pro Turbo w/TV 4/8M.....$85/145
- ATI 3D Xpression+ 2M/4M.....55/70
- ATI 3D Xpression+ w/TV 2M/4M.....68/85
- ATI Xpert@Work 4/8M.....85/105
- ATI Xpert@Work AGP 4/8M.....125/155
- ATI Xpert@Play 4/8M.....130/170
- ATI Xpert@Play AGP 4/8M.....138/175
- ATI All in Wonder 4M.....145
- ATI All in Wonder Pro 4/8M.....190/225

matrox
- Mystique II 4M OEM/Retail.....$75/98
- **Productiva G100 AGP 4/8M.....75/85**
- Millennium II 4/8M.....125/165
- Millennium II AGP 4/8M.....125/195

CONTROLLERS

- Diamond Fire Port 40 UW.....$85

Adaptec
- 2940 Ultra SCSI.....$140
- **2940 Ultra Wide SCSI.....155**

BACKUP UNITS

- Colorado T-3000 3.2GB.....$155
- Colorado T-4000 8GB.....335

iomega
- 800MB Ditto Drive Int./Ext.....$99/130
- 3.2GB Ditto Drive Int.....179
- 100MB Zip Drive Int./Ext.....95/135
- 100MB Zip Drive Ext. SCSI.....135
- 1GB Jaz Drive Int. SCSI.....275
- 1GB Jaz Drive Ext. SCSI.....295

SOUND CARDS

- ESS 16-Bit.....$14
- Yamaha 16-Bit 3D.....14
- Genius 16-Bit Full Duplex.....18

CREATIVE
- Sound Blaster 16.....$38
- **Sound Blaster AWE 64.....65**
- Sound Blaster AWE 64 Gold.....135

CD-ROM DRIVES

- BTC 24X IDE.....$49
- Teac 24/32X IDE.....60/70
- Mitsumi 24/32X IDE.....55/65
- Samsung 32X IDE.....65
- NEC 24/32X SCSI.....90/110
- Mitsumi 2X8 CD-Writer IDE.....255
- Panasonic 4X8 CD-Writer IDE.....319
- Panasonic 4X8 CD-Writer SCSI.....335
- **Panasonic 4X8 CD-Writer w/SCSI Cont. & Software.....395**

TOSHIBA
- XM-6102 24/32X IDE.....$60/70
- XM-5701 24X SCSI.....85
- Toshiba DVD Kit.....245

SONY
- CDU611 24X CD-Rom.....$65
- **CDU928E 2X8 CD-Writer IDE.....270**
- CDU926S 2X6 CD-Writer SCSI.....270

NETWORKS

- 16 BIT ISA Ethernet Combo.....$15
- **32 BIT PCI Ethernet Combo.....18**
- 32 BIT PCI 10/100 TP.....45
- Intel Express Pro-100, 10/100.....50
- 9/18/24 Port HUB.....50/90/210

3Com
- 3C509 TP/Combo.....$45/65
- 3C900 PCI TP/Combo.....70/80
- 3C905 PCI 10/100 TP.....58
- 3Com Office HUB 16 Port.....195

MICE & KEYBOARDS

- 3 Button Mouse Serial/PS-2.....$5.8
- **Logitech Mouseman (OEM) Serial /PS-2.....18/22**
- Mitsumi 104 Keyboard.....12
- Keytronic 104 Keyboard.....20
- Keytronic 104 w/ Mouse PS2.....27
- Focus 2001 104 Keyboard.....25

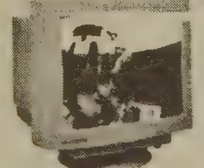
NOTEBOOK

IBM TP380D
Pentium® 150MMX, 16MB
2.1GB HD, 8X CD-Rom, Sound
12.1" TFT Display, Windows 95
$1395

CASES & POWER SUPPLY

- **Mini Tower w/ 230W PS.....$22**
- Super Mini Tower w/230W PS.....32
- Med. Tower w/ 230W PS.....42
- Full Tower Case w/250W PS.....55
- Full Tower Server w/300W PS.....125
- **ATX Mid Tower w/235W PS.....55**
- ATX Desktop w/235W PS.....65
- ATX Full Tower w/235W PS.....89
- 230W Power Supply.....19

PROTON



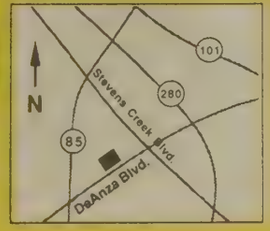
PROTON 17" 1280 X 1024 .26DP
$325
WWW.PROTON-USA.COM

LMC

LEX MICROCOMPUTER

HOURS:
M-F 10AM-7PM
Sat 11AM-4PM

10555 S. DeAnza Blvd. # 125 Cupertino, CA 95014
Tel: (408) 873-3727 Fax: (408) 873-3729



All brand names are registered trademarks of their respecttive owner
Prices and availability subject to change without notice. Prices reflect cash discount. We're not responsible for typographical error

From Jobs To Memorabilia

Web Sites For The Movie Fan | By Jill Barnes

Do the movies and all their trappings have a special appeal? Do you lust for that special autographed picture? How about a vintage movie poster for your den or family room? Or are you a struggling actor looking for a job?

Movie buffs and fans have lots of places on the Internet to find collectibles—or to book tours to movie studios. A few clicks and you're just a phone call or email away from getting just about all the information you'll need.

Posters

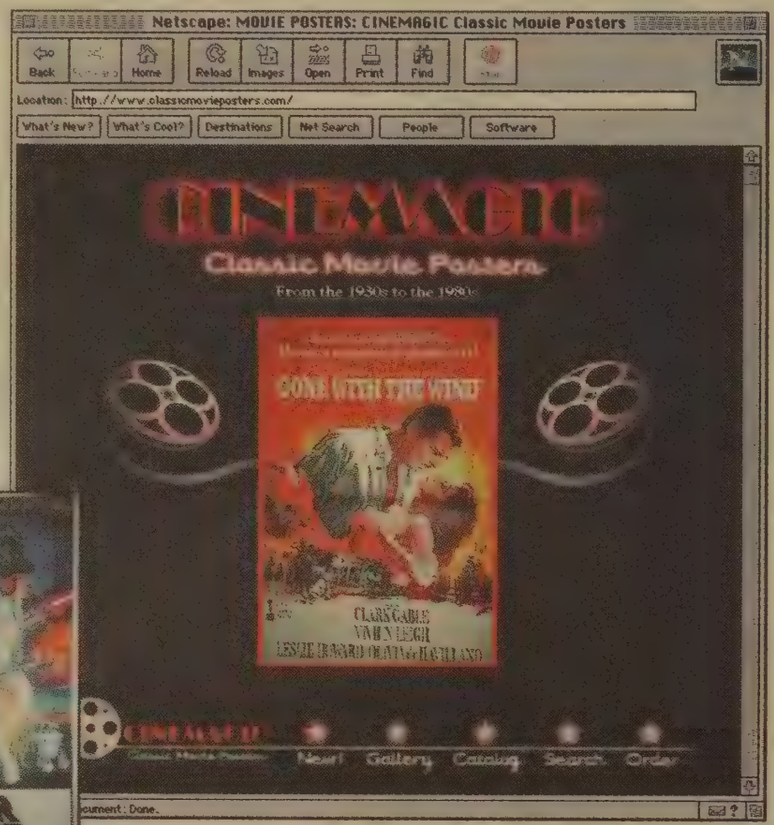
Movie posters, like the ones displayed at your local movie house, are hot items, especially the older and classic ones.

At **Cinemagic** (*www.classicmovieposters.com*), a company located in San Diego, poster fans will find all kinds of movie poster-art. Samples of the posters are available for viewing on screen, but if you plan to buy, have a hefty checkbook ready. A poster from a Roy Roger movie, *Along the Navajo Trail*, circa 1946, can be yours for $400. The same price also gets you a colorful shot of Laurel & Hardy shaving from their movie *Our Relations* (1936). Or how about *The Ape*, starring Boris Korloff (1940) for just $600. If you're into Sci-Fi, a poster from the 1958 classic *The Astounding She Monster* is priced at $950. If you're just starting out, the company does offer a few for less than $100.

If you're a "Bond, James Bond" fan go to the **Cinemonde** site (*www.commanders.com/~bond/cinemond/cmhome.htm*). Here, the serious Bond collector, mostly of the Sean Connery era, can find classic posters from 1962-1971. Did you know there were different movie house posters for both the United States and UK? They have them at this site. Again, these posters don't come cheap. One rare variety from the movie *Goldfinger* is available for about $2,000.

The Movie Poster Page (*www.musicman.com/mp/posters.html*) says it's the largest and oldest Web site on the Internet dedicated to movie posters. At this site, you can find samples of illustrated posters for sale from a large private collection, plus a non-illustrated catalog with over 3000 entries. And if you don't see what you want, just ask. They say they're happy to search for your request.

Memorabilia Mine (*www.memomine.com*) is hailed as "One stop shopping for movie memorabilia." The San Jose company has posters, stills, autographs, sound tracks, sheet music, and press books. Poster and autograph hounds can find stuff from a diverse group of individuals—Tom Hanks, Richard Pryor, and Herman Munster. They also offer things like the *Hit Parade* with Judy Garland on the cover and classic Disney Comics featuring Davy Crockett and The Shaggy Dog.



Autographs

Those interested more in autographs can call up **J. D. Bardwell's Celebrity Autographs Page** (*www.nh.ultranet.com/~bardwell*) . Their prices start as low as $1 and they guarantee all autographs are authentic—forever. Whatever that means. Bardwell says they go right to the source for autographs. In addition to movie stars, the company also has signatures from television stars, musicians, and rock stars.

Autograph World (*www.autographworld.com*) says it's the Internet's best online autograph catalog. They specialize in the sale of celebrity autographs from vintage television and film through the present. All autographs come with a lifetime, money back guarantee backed with a certificate of authenticity.

Autographs Central (*www.autographcentral. com*) has lots of photos with autographs for sale. They seem to favor the outer space theme—much of their stuff is from the different *Star Trek* and *Star Wars* series. They plan to include materials from *Babylon 5* and *Battlestar Galactica* in the near future.

Speaking of space, you'll find lots of fan club sites for *Star Trek* and *Star Wars*. There are at least a dozen sites for *Star Trek* enthusiasts (including ones from Germany and New Zealand) and maybe a half dozen for *Star Wars* (featuring an Italian language site). Just click the search area with your selection.

Studios

If the studio is your scene, **Screenscribe** (*www.geocities.com/hollywood/4486*) has related links to the movie and television studios for one stop shopping. One link was to the ***Titanic*** (*www.titanicmovie.com*) . So, get the latest scoop on this year's blockbuster.

If you wish to find info on the individual studios, most have their own site. At **Paramount** (*www.paramount.com*), you can get information on its big screen and TV movies, along with home videos. It's an interesting site for other tidbits of info, such as booking regular tours for the Hollywood studio.

Warner Bros. (*www.warnerbros.com*) offers info on its movies, TV shows, videos, and amusement parks. There's also a virtual lot, with a map to find out about individual shows such as *ER* and *Friends*, or material on dramas and comedies. You can also call up bios and pictures of your favorite Warner Bros. stars.

At the **20th Century Fox** site (*www.fox.com*), you'll find some special screenings of movies along with a sort of virtual tour of how some of the movie sets are made. It also includes downloadable pictures and interactive sites.

Universal Studios (*www.universalstudios.com*) has director clips and other downloadable clips from its new movies like: *Mercury Rising*, *Black Dog* and *BASEketball*.

MGM-United Artists(*www.mgmua.com*) has a studio store, movie and TV information, contests and a listing of upcoming events that your local area might be hosting.

But Wait, There's More

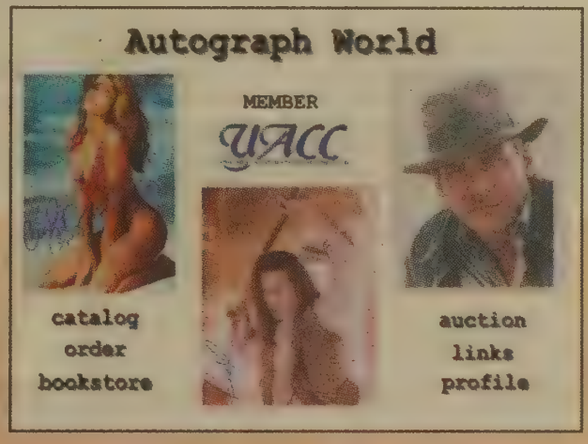
Cinemaholics (*www.inquo.net/~cinema*) is for the ultimate fan. It features TV and motion picture collectibles, autographs, props and memorabilia. They let you know, "We're not the cheapest place on the block, but if quality and uniqueness is what you want, this is the place." All autographs are guaranteed authentic, although I'm not sure how they can do that considering some are from the 1920s. Among the autograph pictures offered are of Batman and Robin from the TV series (Adam West/Burt Ward) for $125, or you can go with the newer pairs, Val Kilmer and Chris O'Donnell of *Batman Forever* for $175. There's also a page on the ins-and-outs of autograph collecting and how to start. Plus, another Star Trek Page, which promises you'll find items no one else has.

Cinemaholics gives information on conventions and seminars and offers a catalog of available merchandise that can be unzipped later for viewing.

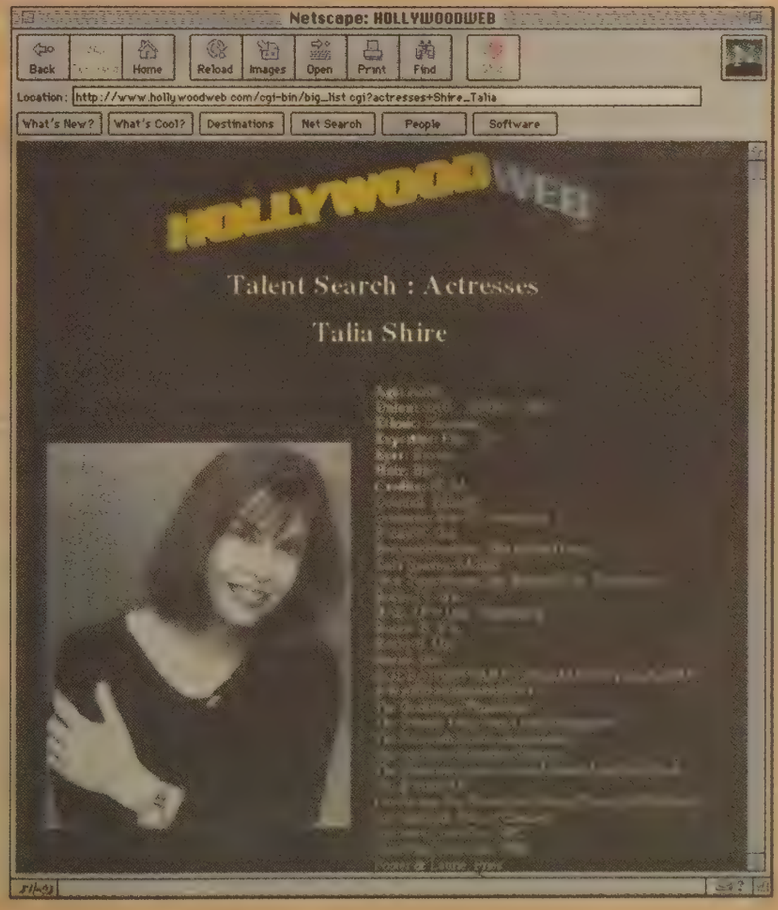
eDRIVE (*www.edrive.com/index3.html*) gives you the latest scoop on upcoming movies and TV shows. Plus, there are chat sessions with celebrities from both the big and small screen. You also can download "wallpaper" of such stars as the Spice Girls, Leonardo DiCaprio, Demi Moore, the Odd Couple—and the screen's newest and "biggest" star, Godzilla.

If you're looking for a job in the movies, try the **Hollywood Web** (*www.hollywoodweb.com*). It's an online job bulletin board for would-be actors, writers, extras, and techs. Or if you think you could be a stunt person in the movies or on TV, click to **Stunt Players** (*www.stuntplayers.com*). It's touted as the "only searchable Database of World Class Stunt performers in Hollywood and around the World." Prospective stunt people can add their resume to the mix. ◆

Copyright © 1998 by Jill Barnes. All rights reserved.



Opposite page: Fans can buy classic movie posters at Cinemagic. This page, clockwise from right: Autograph World specializes in the sale of celebrity autographs; the *Titanic* site includes storyboards, interviews, and stills from the blockbuster, like this one of Kate Winslet; actors can post their headshot and resume on the Hollywood Web; 20th Century Fox's site contains special screenings and downloadable pictures; at eDrive you can get the latest scoop on upcoming movies and TV shows.



Wall Street Meets "Entertainment Tonight"

Today, Stocks. Tomorrow, Movies? | By David Kline

Matchmaking is not usually my forté, but I can't help thinking that two of the Internet's more attractive players would make a lovely (and highly profitable) couple.

The prospective groom? The online securities trading industry.

The blushing bride? Entertainment fantasy-game "stock markets," in which participants buy and sell faux "shares" in movies, actors, sports figures, and other pop culture icons.

In contemplating a marriage between these industries, I must first consider the groom's "prospects," as it were. And they look fine indeed.

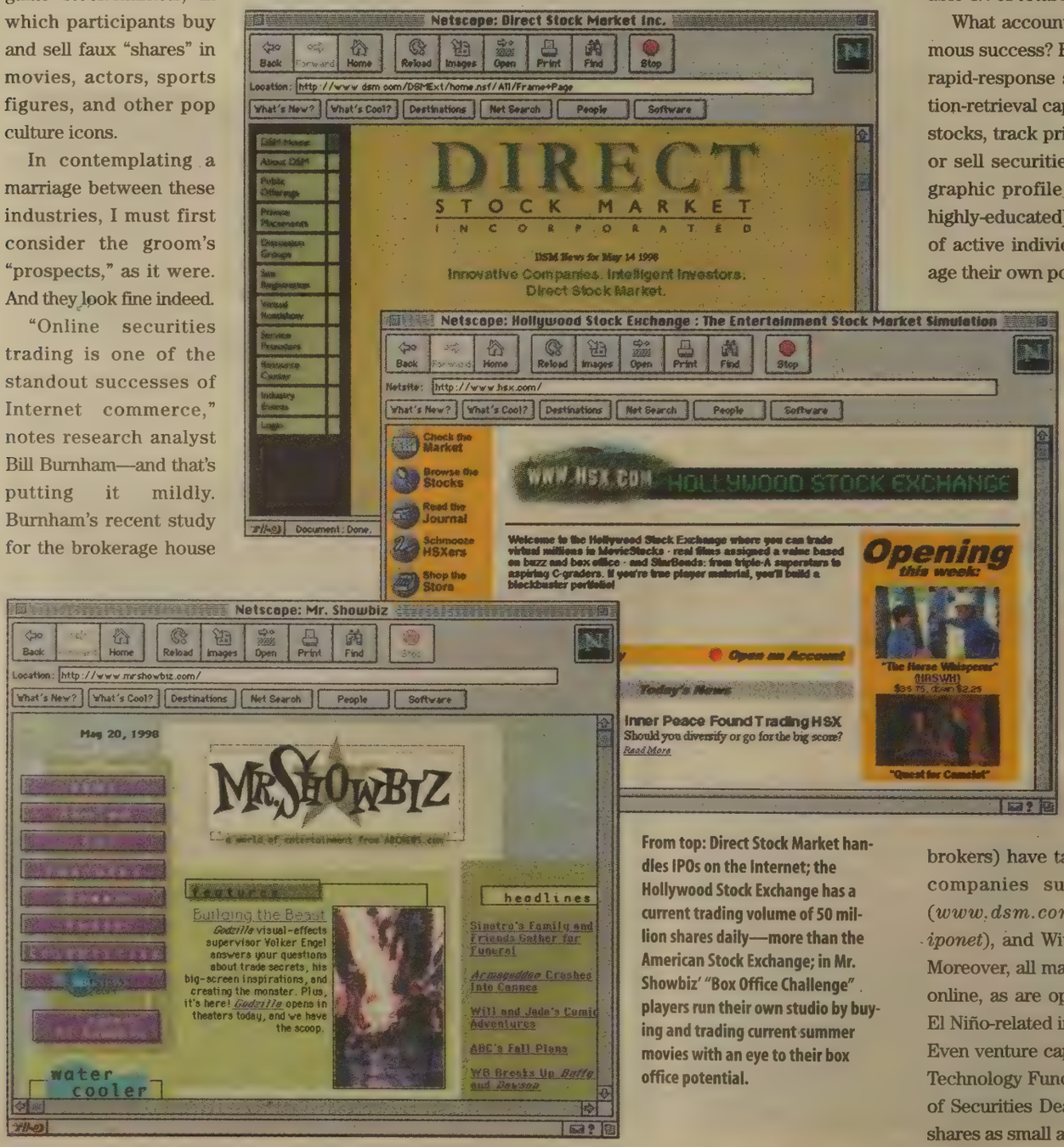
"Online securities trading is one of the standout successes of Internet commerce," notes research analyst Bill Burnham—and that's putting it mildly. Burnham's recent study for the brokerage house Piper Jaffray predicted that commissions derived from Internet securities trading will increase four-fold—to $2.2 billion by 2001, from $628 million in 1997. That figure will represent 60% of all discount commissions and 10% of all retail stock brokerage commissions.

Other studies confirm Piper Jaffray's estimates. Forrester Research predicts that the number of people holding online trading accounts will jump from 3 million today to more than 14 million within four years. These traders will wield $688 billion in assets, notes Forrester, and will be responsible for as much as 20% of all trading volume on Wall Street, up from today's already enviable 4% of total stock market activity.

What accounts for online stock trading's enormous success? First, there's the fact that the Net's rapid-response searching, filtering, and information-retrieval capabilities make it easy to research stocks, track prices, access timely news, and buy or sell securities efficiently. Second, the demographic profile of Internet users (affluent and highly-educated) tracks perfectly with the profile of active individual investors, who largely manage their own portfolios.

That said, however, my duties as a virtual matchmaker require me to examine the eager groom's, er, "fertility." And I have to say that not only has the online stock business been hugely successful with regard to trading existing securities, it has also proved extraordinarily prolific at siring new kinds of financial products and services.

Since the Securities and Exchange Commission granted approval in 1996 for online IPOs, for example, more than 50 direct public offerings (IPOs sold directly to the public via the Internet without the mediation of underwriters and brokers) have taken place under the auspices of companies such as Direct Stock Market (*www.dsm.com*), IPOnet (*www.zanax.com/iponet*), and Wit Capital (*www.witcapital.com*). Moreover, all manner of bonds are now being sold online, as are options and futures, including new, El Niño-related insurance industry "storm futures." Even venture capital funds have gone online since Technology Funding won the National Association of Securities Dealers' approval to sell "retail size" shares as small as $1,000 in its VC fund.



From top: Direct Stock Market handles IPOs on the Internet; the Hollywood Stock Exchange has a current trading volume of 50 million shares daily—more than the American Stock Exchange; in Mr. Showbiz' "Box Office Challenge" players run their own studio by buying and trading current summer movies with an eye to their box office potential.

InterPro Delivers Unbeatable PC Upgrades Solution !!!

AIR — Authorized Distributor — The Best Price, Service, Quality & Value !!!

- *P6BDXSE-233~400+,Dual P2,440BX,4xPCI/3xISA/AGP/Raid,2x7895 SCSI/E-net,ATX..... $ 419*
- *P6BDXS-233~400+,Dual P2,440BX,4xPCI/3xISA/AGP/Raid,Dual 7895 SCSI/IDE,ATX..... $ 379*
- *P6BXIS-233~400+,P2,440BX,4xPCI/3xISA/AGP/Raid,2940UW,2xUIDE,USB,Dim,ATX..... $ 259*
- *P6BXI-233-400+,P2,440BX,4xPCI/3xISA/AGP,2xUIDE,4xDim,USB,Award,ATX..... $ 175*
- *P6LDXS-233~333+,Dual P-II,440LX,4xPCI/3xISA/AGP,2940UW/2xUIDE,4xDim,ATX..... $ 279*
- *P6LXIS-233~333+,P-II,440LX,4xPCI/3xISA/1xAGP,2940UW/2xUIDE,4xDim,USB,ATX..... $ 215*
- *P6LXI-233~333+,P2,440LX,4xPCI/3xISA/AGP,2xUltra/IDE,I/O,4xDim,2xUSB,ATX,Award $ 145*
- *P6NDP-150~200Mhz,Dual/Pro,Natoma,4xPCI/4xEISA/Raid,2940UW SCSI/IO,2S/1P,AMI $ 589*
- *P54TXI/S-233MMX/K5/K6,TritonTX,512K,4xPCI/3xISA,2940UW/UIDE/IO,2S/1P,ATX..... $ 209*
- *P54TXI-75~233MMX/K6,Triton TX,512K,4xPCI/4xISA,2xIDE/IO,2S/1P,4x72,AMI,ATX..... $ 109*
- *Adaptec RAID ARO-1130,PCI-to-SCSI MultiChannel Array Adapters (Raid 0,1,5),w/Kit.... $ 189*

SUPERMICRO (Made In U.S.A)

- *P6DBS-233~400+,Dual P2,440BX,4xPCI/3xISA/AGP/Raid,Dual 7895 SCSI,4xDim,ATX..... $ 369*
- *P6DBE-233~400+,Dual P2,440BX,4xPCI/3xISA/AGP,UIDE/IO,2xUSB,4xDim,AMI,ATX..... $ 255*
- *P6SBS-233~400+,P2,440BX,4xPCI/3xISA/AGP/Raid,Dual 7895 SCSI,4xDim,AMI,ATX..... $ 265*
- *P6SBA233~400+,P2,440BX,4xPCI/3xISA/AGP,UIDE/IO,2xUSB,3xDim,AMI,ATX..... $ 149*
- *P6DLH-233~333+,Dual P2,440LX,9xPCI/3xISA,i960rd(IOP),2xIDE/IO,4xDim,Full AT..... $ 629*
- *P6DLS-233~333+,Dual P-II,440LX,4xPCI3xISA,2940UW/IDE/IO,2S/1P,USB,Full ATX..... $ 279*
- *P6DLE-233~333+,Dual P2,440LX,4xPCI/3xISA/AGP,2xUltra/IDE/IO,2S/1P,2xUSB,ATX.... $ 189*
- *P6SLS-233~333+,P2,440LX,4xPCI/3xISA/AGP,2940UW/2xUIDE/IO,2S/1P,4xDim,ATX..... $ 219*
- *P6SLA-233~333+,P2,440LX,4xPCI/3xISA/AGP,2xUlta/IDE/IO,2S/1P,3xDim,2xUSB,ATX.... $ 119*
- *P6SKS-233~300+Mhz,P-II,440FX,4xPCI/4xISA,2940UW/2xIDE/IO,2S/1P,USB,Full ATX.... $ 149*
- *P6SKEII-233~300Mhz,P2,440FX,4xPCI/4xISA,2xIDE/IO,2S/1P,6x72-pin,AMI,ATX,USB..... 79*
- *P6DNH2-150~200,Dual/Pro,Natoma,i960,8xPCI/3xISA,2xIDE/IO,2S/1P,8x72-pin,Full AT $ 498*
- *P5MMS98-75~233MMX/K5/K6,430TX,4xPCI/4xISA,2xIDE/IO,2S/1P,4x72-in/2xDimm,AT.. $ 99*
- *P55STE-75~200MMX,TritonII,256K,4xPCI/4xISA,IDE/IO,2S/1P,6x72-pin,USB,baby AT..... $ 75*

TYAN

- *S-1836Dluan-233~400+,Dual P2,6xPCI/ISA/AGP,Raid Port,Dual 7895 SCSI,4xDim,ATX.. $ 559*
- *S-1832DL-233~400+,Dual P2,5xPCI/2xISA/AGP,2xIDE/IO,2xUSB,4xDim,ATX..... $ 259*
- *S-1846S-233~400+,P2,440BX,5xPCI/2xISA/AGP,3xIDE/IO,2xUSB,3xDim,ATX..... $ 175*
- *S-1696DLUA-233~333+,Dual P2,440LX,4xPCI/2xISA/AGP,Dual 2940UW/2xIDE,ATX..... $ 339*
- *S-1692DL-233~333+,Dual P-II,440LX,5xPCI/2xISA/1xAGP,2xUIDE/IO,4xDim,USB,ATX.. $ 225*
- *S-1692SL-233~333+,Single P2,440LX,5xPCI/2xISA/AGP,2xUltra/IDE/IO,4xDim,ATX..... $ 145*
- *S-1592S-75~266Mhz,VIA VP3,512K,4xPCI/3xISA/AGP,UIDE,4xSim/2xDim,2xUSB,ATX..... $ 109*
- *S-1564D-75~233MMX,Dual/P,TritonII,512K,4xPCI/5xISA,2xIDE/IO,2S/1P,8x72,AT..... $ 169*
- *S-1564S-75~233MMX,TritonII.512K,4xPCI/5xISA,2xIDE/IO,2S/1P,8x72-pin,AT..... $ 129*
- *S-1571S-75~233MMX/K5/K6,430TX,512K,5xPCI/4xISA.IDE/IO,2xDim,Simm,AT,Award..... $ 95*

MICRONICS

- *MIDBH-233~400+,Dual P2,440BX,5xPCI/ISA/AGP,2xIDE/IO,4xDim.ATX..... $ 319*
- *MISBR-233~400+,P2,440BX,4xPCI/2xISA/AGP,2xIDE/IO,3xDim,2xUSB,ATX..... $ 199*
- *MIDLS-233~333+,Dual PII,440LX,3xPCI/2xISA/AGP,2940UW/IDE,4xDim,ATX..... $ 409*
- *MISLT-233~333+,PII,440LX,4xPCI/3xISA/AGP,2xIDE/IO,2S/1P,4xDim,USB,ATX.... $ 209*
- *MIDFD-233~300+,Dual PII,440FX,4xPCI/2xISA,2xIDE/IO,2S/1P,4xDimm,ATX..... $ 275*
- *MISFW-233~300+,P-II,440FX,4xPCI4xISA,2xIDE/IO,2S/1P,4x72/2x168,ATX..... $ 179*
- *M7STA-75~233/K6,430TX,512k,5xPCI/4xISA,IDE/IO,2S/1P,4x72/2xDim,AT or ATX.$ 129*

intel (Made By Intel)

- *SE440BX-233~400+,P2,440BX,PCI/ISA/AGP,2xUIDE/IO,Audio,3xDim,USB,ATX.... $ 198*
- *Dakota-Dual P2,3xPCI/1x2xISA/AGP,2940UW/IDE,2xUSB,4xDim,VGA,PnP,ATX.... $ 475*
- *Atlanta-P-II,440LX,3xPCI/2xISA/1xAGP,2xIDE/IO,2xUSB,3xDimm,Phoenix,ATX..... $ 149*
- *Anchorage-75~233MMX/K6,430TX,512K,3D Yamaha Sound,IDE/IO,ATX..... $ 145*

ASUS

- *M668DS-233~333+Mhz,Dual P2,LX,3xPCI/4xISA/AGP,2940UW/UIDE,Dim,ATX.... $ 279*
- *M668D-233~333+Mhz,Dual P2,440LX,3xPCI/4xISA/AGP,2xUIDE/IO,.4xDim,ATX.. $ 199*
- *M628-233~333+Mhz,P2,440LX,3xPCI/4xISA/AGP,2xUIDE/IO,4xDim,Award,AT..... $ 149*
- *M58I-75~233MMX/K6,SIS5591,1M cahche,4xPCI/3xISA,2xUIDE,4xSim/3xDim,AT.. $ 119*

ASUS

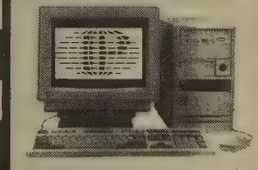
- *P2B-DS-233~400+,Dual P2,440BX,4xPCI/2xISA/AGP,2940UW/S3,IDE/IO,ATX..... $ 429*
- *P2B-D-233~400+,Dual P2,440BX,4xPCI/2xISA/AGP,2xIDE/IO,2xUSB,4xDim,ATX.. $ 329*
- *P2B-S-233~400+,P2,440BX,4xPCI/ISA/AGP,2940UW/S3,IDE/IO,4xDim,USB,ATX.. $ 309*
- *P2B-233~400+,P2,440BX,4xPCI/ISA/AGP,2xIDE/IO,4xDim,2xUSB,ATX..... $ 195*
- *P2L97-DS-233~333+,Dual P-II,440LX,4xPCI/2xISA/1xAGP,2940UW/2xIDE,ATX..... $ 335*
- *P2L97S-233~333+,P2,440LX,4xPCI/2xISA/AGP,2940UW/2xUIDE,3xDim,USB,ATX$ 229*
- *P2L97-233~333+,P-II,440LX,4xPCI/2xISA/1xAGP,2xIDE,3xDimm,USB,ATX..... $ 145*
- *P5TX97-E-200MMX/K5/K6,TritonTX,512k,4xPCI/3xISA,IDE/IO,2S/1P,4x72/2xDim. $ 119*

F. I. C (First International Computer)

- *VB-601-233~400+,P2,440BX,5xPCI/2xISA/AGP,2xIDE/IO,4xDim,2xUSB,ATX..... $ 149*
- *VL-601-233~400+,P4,440LX,5xPCI/2xISA/AGP,2xIDE/IO,3xDim,2xUSB,ATX..... $ 125*
- *VA-503+-75~266+/K6(100Mhz),MVP3,1M,3xPCI/3xISA/AGP,2xIDE,Sim/Dim,AT.... $ 109*
- *PA-2012-75~233MMX/K6,VP3,1M,4xPCI/2xISA/AGP,3xIDE,3xDim,2xUSB,ATX..... $ 105*

Gigabyte (Micro International U.S.A w/2-years-Warranty)

- *GA-6DLX-233~333+,DualP2,LX,4xPCI/3xISA/AGP/Raid,2940UW/IDE,4xDim,ATX$ 269*
- *GA-6DL2-233~333+,Dual P2,LX,4xPCI/3xISA/AGP,U/IDE,4xDim,Award,ATX..... $ 219*
- *GA-SLX-233~333+,P2,440LX,4xPCI/2xISA/AGP,2940UW/IDE,4xDim,Award,ATX... $ 239*
- *GA-6BLX-233~333+,P2,440LX,4xPCI/2xISA/AGP,2xUIDE/IO,4xDim,Award,AT..... $ 129*
- *GA-5SG-75~233MMX/K6,SIS5591,512k,4xPCI/2xISA/AGP,UIDE/IO.Sim/Dim,AT..... $ 89*



The best place in Town to upgrade your PC

STOP Search no more !!

Call our Technical Sales to assist you with Customizing computer systems according to your special requirements

- *Build yourself or*
- *We can do it for you*

586 PCI WIN 95' STATION

- *Pentium100~233MMX CPU w/fan
- *VIA VP3,PCI/ISA/AGP,w/1 MSyn.
- *32MB/10ns,168-pin SDram
- *Ultra/IDE w/2S/1P/1G,2xUSB
- *3.2GB Ultra IDE Hard Drive
- *1.44MB Floppy Drive
- *33.6 Fax/Data/Voice Modem.
- *3D Sound card w/240W Speaker
- *14" Flat Screen NI 1024x768 .28
- *Trident T9753DAGP w/4MB SGRAM
- *Mini-Tower Case w/250 W P.S
- *24X Speed IDE CD-ROM
- *Keyboard & MS-Mouse
- *Windows 95' Installed.

AMD K6-200/233	$770/$799
AMD K6-266/300	$819/$859
Cyrix M2-200+/233+Mhz	$759/$769
Pentium-133/166Mhz	$759/$789
Pentium-166/200MMX Mhz	$809/$839
Pnetium-233MMX Mhz	$849

POWER P5 SERVER

- *Dual Pentium 75-200Mhz Ready*
- *PCI/EISA Slots,w/512K Syn. Cache*
- *Intel Triton II Chipset.*
- *64MB/60ns/EDO(upto 512K)*
- *Adaptec 2940UW,Ultra/Wide SCSI*
- *4.3GB Ultra Wide SCSI-3 Hard Drive*
- *32x Speed SCSI CD-Rom*
- *3Com PCI 10/100 BTX network card.*
- *14" SVGA 1024x768.28dp*
- *MS-Mouse,104 Keyboard*
- *64-Bit PCI SVGA,1.44MB Floppy*
- *Mid-Tower Case w/250 WP.S*

Designed for: Novell, UNIX, Win NT

DUAL PCI/EISA: (AIR P5TDP)

DUAL P-133/166	$1489/$1519
DUAL P-166/200MMX	$1549/$1579
DUAL P-233MMX	$1619

DUAL PCI/ISA: (Tyan S-1564D)

DUAL P-133/166	$1299/$1329
DUAL P-166/200MMX	$1359/$1379
DUAL P-233MMX	$1439

Pentium-II Station

- *Intel Pentium-II 233~333 CPU w/fan
- *Intel 440LX,4xPCI/3xISA/AGP,w/ATX
- *2x Ultra IDE/IO(33MB/Sec),2S/1P
- *32MB SDRAM Memory(100Mhz)
- *3.2GB Ultra/33Mb/IDE hard disk
- *16-Bit 3D Sound Card w/PnP
- *240W Hi-Fi Stereo Speaker,w/Retail
- *Diamond Supra 56K Fax/Voice Modem
- *32x Speed IDE CD-ROM
- *Teac 31/2",1.44MB Floppy Drive
- *Mid-Tower, w/250W(ATX)
- *MS-Mouse & 104 keys Keyboard
- *3D AGP VGA card w/4MB SGRAM
- *MS-Windows 95" Installed (licensed)

Pentium-II-266Mhz(Celeron)	$779
Pentium-II-233Mhz,w/512kcache	$839
Pentium-II-266Mhz,w/512kcache	$889
Pentium-II-300Mhz,w/512kcache	$1039
Pentium-II-333Mhz,w/512kcache	$1159

Super Station

- *Intel Pentium-II 233~400+ CPU w/fan
- *Intel 440BX,4xPCI/3xISA/AGP,w/ATX
- *2x Ultra IDE/IO(33MB/Sec),2S/1P
- *64MB SDRAM Memory(100Mhz)
- *6.4GB Ultra/33Mb/IDE hard disk
- *Creative Lab Sound Blaster AWE64,PnP
- *240W Hi-Fi Stereo Speaker,w/Retail
- *Diamond Supra 56K Fax/Voice Modem
- *32x Speed IDE CD-ROM
- *Teac 31/2",1.44MB Floppy Drive
- *Mid-Tower, w/250W(ATX)
- *MS-Mouse & 104 keys Keyboard
- *Intel i740 Rapter 3D AGP VGA w/4MB SGM
- *MS-Windows 95" Installed (licensed)

Pentium-II-266Mhz(Celeron)	$1019
Pentium-II-233Mhz,w/512kcache	$1079
Pentium-II-266Mhz,w/512kcache	$1129
Pentium-II-300Mhz,w/512kcache	$1279
Pentium-II-333Mhz,w/512kcache	$1399
Pentium-II-350Mhz,w/512kcache	$1479
Pentium-II-400Mhz,w/512kcache	$1699

Dream Machine

- *Dual Pentium-II w/440BX chip,CPU Ready
- *64MB SDRAM Memory(100Mhz)
- *2x Ultra IDE/IO(33MB/Sec),2S/1P
- *Adaptec Dual 7895 UW/S3(80Mb/Sec)
- *4.5GB Ultra/Wide SCSI3 Hard disk
- *Iomega 100MB IDE Zip Drive + Tools
- *USRobSportster 56K Data/Fax Modem
- *Creative Lab AWE64 PnP
- *Yamaha Stereo Speaker,w/Retail
- *ATI Xpert@Play(PC2TV),AGP w/8MSGm
- *32x Speed IDE CD-ROM
- *Teac 31/2",1.44MB Floppy Drive
- *Mid-Tower, w/UNIX(ATX)
- *MS-Mouse & 104 keys Keyboard
- *MS-Windows NT 4.0 Installed (licensed)

Dual Pentium-II-233Mhz,w/512k	$1899
Dual Pentium-II-266Mhz,w/512k	$1999
Dual Pentium-II-300Mhz,w/512k	$2299
Dual Pentium-II-333Mhz,w/512k	$2549
Dual Pentium-II-350Mhz,w/512k	$2699
Dual Pentium-II-400Mhz,w/512k	$3189

intel AMD Cyrix

Intel P2-350/400	$575/$809
Intel P2-300/333	$375/$499
Intel P2-233/266	$199/$249
Intel Pro-180/200	$145/$299
Intel MMX-166/200/233	$99/$119/$139
Intel P-166/200	$99/$139
Intel P-100/120/133	$69/$89/$97
Cyrix M2-200+/233+/166+	$69/$79/$115
AMD K6-233/266/300	$89/$139/$159
4/8/16MB/60ns/EDO	$7/$17/$27
32/64/128MB/60ns/EDO	$45/$129/$259
168pin Sdm-32/64/128MB	$49/$95/$179

Please Call for New Daily Prices

VIDEO CARDS

ATi — matrox — Trident — DIAMOND

All-In-Wonder Pro PCI 4/8MB	$209/$249
All-In-Wonder Pro AGP 4/8MB	$225/$269
ATI Xpert@Work 4/8MB/PCI	$89/$115
ATI Xpert@Work 4/8MB/AGP	$95/$119
ATI Xpert@Play PCI 4/8MB	$99/$129
ATI Xpert@Play 4/8MB/AGP	$105/$135
Fire GL 1000 Pro4/8MB/PCI	$129/$169
Fire GL 1000 Pro4/8MB/AGP	$145/$179
Diamond Stealth II (Intel 740) AGP/8M	$99
Diamond 3D Pro AGP 2/4MB	$45/$59
Diamond Monster 3DII-8/12M	$225/$285
Matrox Millennium II 4/8MB/AGP	$125/$189
Matrox Millennium II 4/8MB/PCI	$119/$179
Matrox Productiva AGP 4/8SGM	$79/$97
#9 Revolution 3D 4/8MB/AGP,w/SG	$119/$175
Intel i740 Raptor AGP 8MSGM	$79
Trident T975 3D AGP w/4MB SGram	$49

CD-ROM DRIVES

Toshiba DVD Rom/Quadrant MPEG2	$439
Toshiba 6201B,99ms,32x SCSI/Int	$109
Toshiba 6202,99ms,32x,IDE/Int	$79
Mitsumi-FX320S,32x,99ms,IDE	$78
Creative Labs PC-DVD Encore Dxr2 kit	$279
Sony CD-928E,2xW/8xR Rewriteable	$359
Yamaha RW/4260T,4X2X6 Rewriable SCSI	$519
Teac CD532S,32x,SCSI,Int	$109
Teac CD532E,32x IDE/Int	$75
Plextor-32CSI,115ms,32X,SCSI/Cady	$239

MultiMedia

Sound Blaster 16/AWE64	$39/$69
USRob Sportster 56K Int/Ext	$119/$179
USRob Sportster 33.6 Int/Ext	$89/$149
Diamond Supra 33.6/56K w/Voice	$49/$75

Backup/Network/Controller

Adaptec 2940 U SCSI PCI w/kit	$159
Adaptec 2940UW,Ultra/Wide SCSI/kit	$179
3Com-3C900 PCI Combo	$79
3Com-3C905BTX 10/100 PCI	$69
Intel Ethexpress Pro 10/100,PCI/TP	$59
HP-C1554,4mm Dat.12/24 GB SCSI	$959
HP-C1599A,4mm Dat,8GB SCSI Int	$729
HP-C1536,4mm Dat/4GB SCSI Int	$429
HP-T3000,3.2GB TR3 Tape backup	$169
HP-T4000T,4/8GB TR4 SCSI	$359
HP-4354,2.5/5GB IDE Tape backup	$219

Seagate Tape Backup Drive:

STT28000A,4/8GB TR4,IDE	$239
STT28000N,4/8GB TR4,SCSI	$279
STD24000N,2/4GB,DDS-2 SCSI	$549
STD28000N,4/8GB DDS-2 SCSI	$659
STD224000N,12/24GB,DDS-3 SCSI	$889

DigiView — On Sale

1435,14",1024x768,.28,N/I	$129
1510,15",1280x1024,.28,N/I	$185
1707+17",1280x1024,.28,N/I	$289

NOKIA

447Z17",1024x768,.28dpi,N/I	$475
447XAV,17",1600x1280,.25N/I,Spk/TCO	$679
447Xi,17"1600x1280,.25N/I,Sonytube	$619
446Xpro,19",.21,1600x1280,.21,N/I	$995
445XAV,.21",1600x1280,.26N/I	$1498
445XI21"1600x1200,.22.TCO95	$1379
445XIPro,21",1800x1440,.22MP	$1549

SONY

CPD-100ES 15"1280x1024,.25,60Mhz	$309
CPD-100GS,15"1280x1024,.25,N/I	$359
CPD-200ES,17",1280x1024,.25N/I,60hz	$579
CPD-200GS,17",1280x1024,.25N/I	$639
GDM-200PS,17",1600x1280,.25N/I	$799
GDM-400PS,19",1600x1280,.25N/I	$989
20SE2T,20"1600x1200,.25N/I	$1495
GDM-500PS,21",1600x1200,.28N/I	$1398

NEC

A500,15"1280x1024,.28,N/I	$275
E500,15",1280x1024,.25 N/I	$319
A700,17",1280x1024,.28N/I	$485
E700,17",1600x1280,.25N/I	$579
P750,17",1600x1200,.25,N/I	$779
E900,19",1600x1280,.26,N/I	$879
E1100,21",1600x1280,.28,N/I	$1179

HITACHI

CM500,15",Flat,1280x1024,.28,65hz	$269
CM620U,17",Flat,1280x1024,.28,N/I	$498
CM751U,19",1600x1200,.26,N/I,75Mhz	$879
CM800U,21",1600x1200,.22N/I	$1159
CM802U-511,21",1600x1200,.22	$1259
CM803U,21",1800x1440,.22,77hz	$1549

IMPRESSION

3 Plus 14"1024x768,.28N/I	$159
5 Plus 15",1280x1024,.28N/I	$199
7 Plus 17",1280x1024,.28N/I	$398
Vienna Pro 17",1600x1280,.26N/I	$559

ViewSonic

E641,14",1024x768,.28,N/I	$185
E655,15",1280x1024,.28N/I	$259
15GA,15",1280x1024,.28N/I,Speakers	$349
P655,15",1024x768,.28N/I	$299
E771,17",1280x1024,.28,N/I	$397
EA771,17",1280x1024,.28,N/I,PnP	$475
GA771 17"1280x1024,.27N/I,PnP,w/Spk	$519
G771,17"1280x1024,.27N/I	$449
P775,17",1600x1280,.25N/I	$539
PT771,17",1600x1280,.25N/I	$619
PT775 17"1600x1280,.25,w/SonicTRon	$675
G790,19"1600x1200,.26N/I,75hz	$829
G800 20"1600x1280,.28 N/I	$959
G810 21"1600x1280,.25N/I	$1019
P810,21"1600x1280,.25N/I	$1119
P815,21"1800x1440,.25N/I	$1265

MAG

DX500T 1280x768,.25N/I	$329
DJ530 15" 1280x1024,.28,N/I	$329
DJ700 17" 1280x1024,.26,N/I,60hz	$479
DX700T 17"1280x1024,.25,w/Sonytube	$519
DJ702E 17" 1280x1024,.26,65hz	$459
DJ800 19"1600x1200,.26	$759

Fast Ethernet Hub

- H2TX 2 Port switching hub,1x/10/100 349
- H4TX/S,4 Port Fast Ethernet 100TX Hub $259
- H5TX,5 Port Fast Ethernet 100TX Hub $275
- H8TX,8 Port Fast Ethernet 100TX Hub $329
- H8TXS,8 Port 100TX Stackable Hub $398
- H12TXS,12 Port 100TX Stackable Hub $529

IOMEGA

Jazz Drive 1GB SCSI Int/Ext	$275/$369
Zip Drive 100MB w/IDE/oem/kit	$99
Zip Drive 100MB Parallel	$149
Zip Drive 100MB SCSI Int/Ext	$125/$149

Seagate Quantum Maxtor WESTERN DIGITAL

IBM-DCAS32160W,2GB,UW/S3,8.5ms	$189
IBM-DCAS34330W,4.3GB,UW/S3,8.5ms	$289
IBM-DHEA-36480A,6.4GB,9.5ms,UIDE	$215
IBM-DHEA-38451A,8.4GBUIDE/9.5ms	$299
IBM-DCHS-39130W,9.1GB,UW/S3,8ms	$669
IBM-DGHS-318220W,18GB,UW/S3	$1699
WD22100A,2100MB,EIDE,12ms,128k	$145
WD33200A,3.2GB,EIDE,12ms,128k	$159
WD34004.3GB,EIDE,12ms,128k	$175
WD36400A,6.4GB,10ms,UIDE	$212
WD4360,4.3GB,UW/S3,8ms,512k,7200r	$449
Fujitsu-3064TU,6,4GB,UIDE,10ms	$215
Fujitsu-3045SP,4.5GB,UW/S3,7200	$449
Fujitsu-3091SP,9.1GB,UW/S3,7200	$759
Maxtor 84320A,4.3GB,10ms UIDE	$165
Maxtor 86480D,6.4GB,10ms UIDE	$197
Maxtor 88400D,8.4GB,10ms UIDE	$275
Quantum-32160A,2.1GB,12ms,UIDE	$145
Quantum-33240A,3.2GB,10ms,UIDE	$159
Quantum-34320A,4.3GB,10ms,UIDE	$179
Quantum-36480A,6.4GB,10ms,UIDE	$219
Quantum-38400A,8.4GB,10ms,UIDE	$299
Quantum-32275SW,2.2GB,U/S3,7200	$199
Quantum-34550SW4.5GBUW/S3,8ms	$439
Quantum-36400S,6.4GB,8ms,SCSI	$379
Quantum-39100,9.1GB,8ms,UW/S3	$689
Seagate-36451A,6.4GB,10ms,UIDE	$209
Seagate-32272W,2.1GB,UW/S3,8ms	$259
Seagate-32155W,2.1GB,UW/S3,9ms	$255
Seagate-34572W,4.3GB,UW/S3,8ms	$398
Seagate-34501W,4.5GB,UW/S3Cheetah	$579
Seagate-19101W,9.1GB,UW/S3Cheetah	$859
Seagate-39173W,9.1GB,UW/S3,8ms	$789
Seagate-118273W,18GB,UW/S3,8ms	$1599

MediaGX Databook

*New

Only $489

Features:

Sleek Low-Profile Form Factor
Multimedia Personal Computing Center
Versatile & Reliable Slim-Line Network PC
TV Output / High-Quality Audio Center
Flexible & Powerful Slim-Line Learning Center
Slim-Line Display Flexibility
· Slim-Line Point of Sale Solution

Specifications

- *PCI/ISA Mother board w/512k cache
- *Cyrix MediaGX/GX86-133Mhz
- *16MB EDO (4x72-pin Simm socket)
- *Integrated PCI VGA controller
- *2S/1P, PS/2, USB, 1x RF TV, MIC
- *2.1GB enhanced hard disk
- *Standard 3.5" 1.44MB mode 3
- *Integrated 16-bit PnP Sound Card
- *RF TV output & 2x USB
- *33.6 Data/Fax Modem w/internal
- *24x Speed IDE CD-ROM
- *Slim case w/Power Supply (50W)
- *2-Bottom PS/2 mouse
- *104 keys enhanced keyboard
- *MS-Windows 95" CD & Manual (licensed)

Cyrix MediaGX-200Mhz CPU..	$619
Cyrix MediaGX-180Mhz CPU..	$589
Cyrix MediaGX-166Mhz CPU..	$539

InterPro Microsystems Inc. Since 1993

Reseller & Quantity Pricing Available

Term & Conditions:
Knowledgeable tech-support engineers in service. One year Parts & Labor Warranty. Warranty does not cover software problem. No responsible for typos. Prices Specification, Availability subject to change w/o notice. P.O & Net Term subject to credit approvals. FOB Fremont. Return items are subject to 15% restocking fees. All returned items must has a RMA # & a copy of invoice.

Hours of Operation: M-F 8:00 am - 6:00 pm
Saturday: 10:00 a.m. - 2:30 PM P.S.T

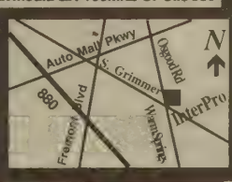
800-226-7216

No Surcharge, Cash Discount Available

Purchase Orders | MasterCard | VISA | COD

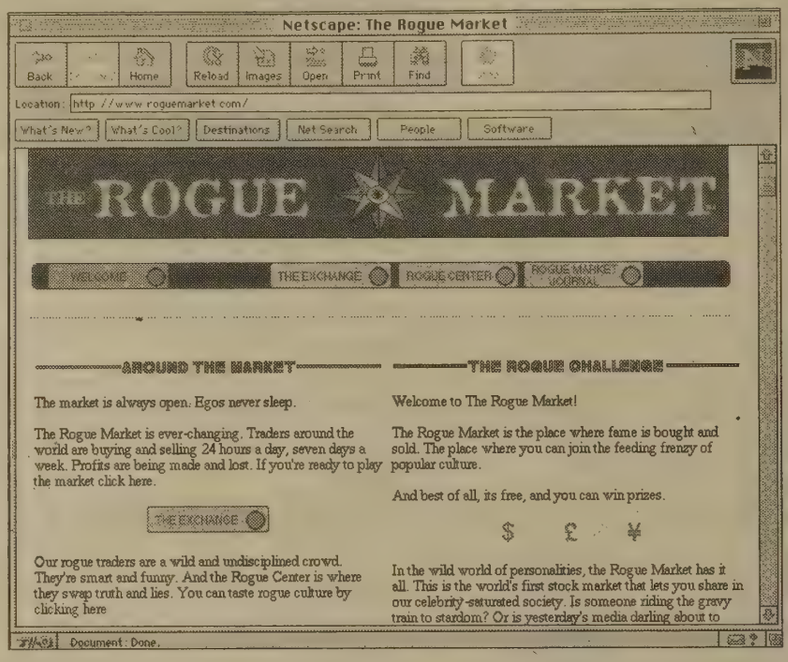
44920 Osgood Road.
Fremont CA 94539
TEL: (510) 226-7228 FAX: (510) 226-7219

Go Online
Come Visit Our New Web Site:
//www.interpromicro.com



And what about the blushing bride? The entertainment fantasy-game "stock markets" can bring a hefty dowry to the marriage. While precise figures are unavailable, I'd estimate the total number of users of sites such as the Hollywood Stock Exchange (*www.hsx.com*), Wall Street Sports (*www.wallstreetsports.com*), Rogue Market (*www.roguemarket.com*), Mr. Showbiz' "Box Office Challenge" (*www.mrshowbiz.com*), and E! Online's "Studio Boss" (*www.eonline.com*) at upwards of 500,000, and growing 25–50% annually. Indeed, an analysis of the most popular service, the Hollywood Stock Exchange (HSX), suggests a surprisingly strong commercial opportunity in this arena.

The HSX boasts 60,000 registered users and is growing at 1–2% daily. Company officials say 10% of the HSX's users are active traders who visit the site an average of once a day to buy and sell "stocks" and "options" in stars, movies, scripts, etc.


Netscape: The Rogue Market
Back
Home
Reload
Images
Open
Print
Find
Location: http://www.roguemarket.com/
What's New?
What's Cool?
Destinations
Net Search
People
Software
THE ROGUE MARKET
WELCOME
THE EXCHANGE
ROGUE CENTER
ROGUE MARKET JOURNAL
AROUND THE MARKET
The market is always open. Egos never sleep.
The Rogue Market is ever-changing. Traders around the world are buying and selling 24 hours a day, seven days a week. Profits are being made and lost. If you're ready to play the market click here.
THE EXCHANGE
Our rogue traders are a wild and undisciplined crowd. They're smart and funny. And the Rogue Center is where they swap truth and lies. You can taste rogue culture by clicking here
THE ROGUE CHALLENGE
Welcome to The Rogue Market!
The Rogue Market is the place where fame is bought and sold. The place where you can join the feeding frenzy of popular culture.
And best of all, its free, and you can win prizes.
$ £ ¥
In the wild world of personalities, the Rogue Market has it all. This is the world's first stock market that lets you share in our celebrity-saturated society. Is someone riding the gravy train to stardom? Or is yesterday's media darling about to
Document: Done.

What's more, the current trading volume on the HSX is 50 million shares daily—more than the American Stock Exchange! And the face value of the faux securities traded each day is more than $2 billion. Not too shabby.

Indeed, the success of fantasy-game stock markets would seem to validate the notion that there is broad public interest (among Internet users, at least) in investing in entertainment.

Even though such entertainment-oriented investing is still just a fantasy, the eager groom is lustily eyeing the prospective bride's luscious new market and heaving revenue potential.

So don't be surprised if this pair moves beyond the flirtation stage to a marriage that will produce a new Internet market in entertainment-based securities. ◆

Copyright © 1998 by David Kline. All rights reserved.

If you enroll in the full program and mention this ad, you'll receive a 20% discount.

CNE & MCSE AT NIGHT

If you aspire to be a Certified Novell Engineer (CNE) or a Microsoft Certified Systems Engineer (MCSE), but have trouble getting time off during the day, Evernet Education Services has the program for you. Evernet is now offering CNE & MCSE courses in the evening!

Our scheduled courses will be conducted in our state-of-the-art classrooms with certified instructors to ensure you gain all the knowledge required to pass the certification tests. And, the best part is you can take the courses in non-business hours and not upset your boss.

Night classes will be starting soon in The Bay Area, so call us today for a free class schedule and more information on how you can get your CNE or MCSE Certificate. Seating is very limited and will be guaranteed on a first-serve basis.

Evernet is now an InfiLearning center...What this means to you is that not only can you obtain the best in Instructor Led Training but we can offer you On-Line Training, CBT's, Video's and other self study materials.

Would you like to use your companies Tuition Reimbursement program to pay for your classes...Well now you can!!! Evernet is an ITCAP center making their Novell and Microsoft classes available for college credits. Call and ask a consultant about this and Microsoft's Skills2000 loan program.

Authorized Technical Education Center Microsoft

Novell EDUCATION AUTHORIZED CENTER

EVERNET EDUCATION SERVICES

CALL TODAY

1-800-447-3658

(Local: 415-764-1400)

San Francisco • Los Angeles • Sacramento

HKG COMPUTERS
Hardware Knowledge Group, Inc

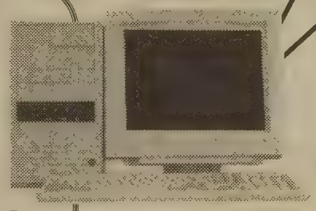
CORPORATE/SMALL BUSINESS/END-USERS

$0 DOWN
INSTANT CREDIT

90 Days Same As Cash, O.A.C.*
Please Call For Details

Computerific!
Free 3 Hours Training with Each System Purchased

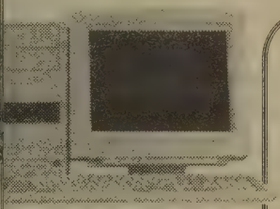
PENTIUM® PROCESSOR WITH MMX TECHNOLOGY-BASED SYSTEMS



- *Intel 430TX Chipset Motherboard
- *32MB SDRAM Memory
- *1.44MB Floppy Drive
- *4.3GB Ultra-IDE DMA/33 Hard Drive
- *PCI SVGA 2MB Video Card
- *15" SVGA Monitor .28 NI
- * 56K Int. Fax/Modem
- *24X IDE CD-ROM Drive
- *Creative Labs Sound Blaster 16
- *120W Amplified Speakers
- *Mid-Tower Case w/230W Power Supply
- *104-Key Enhanced Keyboard
- *Logitech Mouse
- *Microsoft Windows 95

INTEL PENTIUM® 166MHz MMX $939 / 200MHz MMX $949 / 233MHz MMX $969

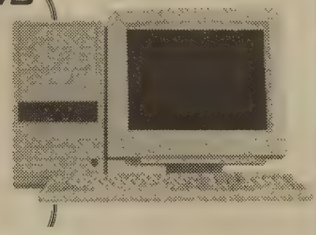
PENTIUM® II PROCESSOR-BASED SYSYEM AL440LX



- * Intel ATLANTA AL440LX Motherboard
- * 64MB SDRAM Memory
- * 1.44MB Floppy Drive
- * 6.4GB Ultra-IDE DMA/33 Hard Drive
- * Matrox 8M AGP
- *17" .28 SVGA Monitor
- *56K Int Fax/Modem
- *32X IDE CD-ROM Drive
- *Creative Labs Sound Blaster 64 Value
- *Altec Lansing 45 Speakers Sytem
- *ATX Mid-Tower w/235W Power Supply
- *104-Key Enhanced Keyboard
- *Logitech Mouse
- *Microsoft Windows 95

INTEL PENTIUM® II 233MHz $1499 / 266MHz $1589 / 300MHz $1699 / 333MHz $1829

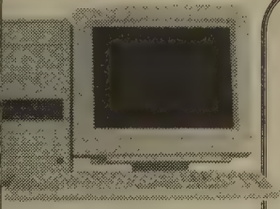
PENTIUM II PROCESSOR-BASED SYSTEMS SE440BX WITH DVD



- *Intel SEATTLE SE440BX Motherboard
- *64MB PC-100 SDRAM Memory
- *1.44MB Floppy Drive
- *6.4GB Ultra-IDE DMA/33 Hard Drive
- *ATI Expert @ Play 8M AGP WITH Soft-DVD
- *17" .28 SVGA Monitor
- *56K Int Fax/Modem
- *2nd Generation DVD Drive
- *Integrated Sound Card
- *Altec Lansing 45 Speaker System
- *ATX Mid Tower w/235W Power Supply
- *104-Key Enhanced Keyboard
- *Logitech Mouse
- *Microsoft Windows 95

Intel Pentium II 350MHz $2099 / 400MHz $2319

DUAL PENTIUM® II PROCESSOR-BASED SERVER



- *Intel DK440LX Motherboard
- *Integrated UW SCSI Controller
- *128MB SDRAM Memory
- *1.44MB Floppy Drive
- *4.0GB UltraWide SCSI Hard Drive
- *PCI, 2MB SVGA Video Card
- *14" SVGA Monitor .28 NI
- *32X SCSI CD-ROM Drive
- *ATX Full-Tower w/300W Power Supply
- *Integrated Sound Card
- *Microsoft Windows NT v.4.0 Workstation
- *Windows NT server v.4.0 w/5 user lic.+$350
- *Windows 95 Keyboard and Logitech Mouse
- *Integrated Fast Ethernet Network Adapter

INTEL PENTIUM® II 2x233MHz $2109 / 2x266MHz $2179 / 2x300MHz $2409 / 2x333MHz $2659

CD-RW SYSTEM

- *Intel 430TX Chipset Motherboard
- *64MB EDO Memory
- *1.44MB Floppy Drive
- *3.2GB Ultra-IDE DMA/33 Hard Drive
- *PCI SVGA 2MB Video Card
- *14" SVGA Monitor .28NI
- *Creative Labs Sound Blaster 16
- *24X IDE CD-ROM Drive
- *HP 7200I CD-RW Drive
- *120W Amplified Speakers
- *Mid Tower Case w/230W Power Supply
- *104-Key Enhanced Keyboard
- *Logitech Mouse
- *Microsoft Windows 95

Intel Pentium® 200MHz MMX $1259

- **1-year parts and lifetime labor warranty on all systems**
- **Gift certificates available**
- **Same low price for credit card and cash**
- **Prices and specifications subject to change without notice**
- **Photos in ad may differ from actual systems**
- **On approval of credit**

DISCOVER VISA MasterCard

HKG/2/M

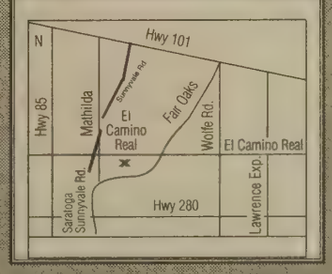
HKG COMPUTERS

- FREE ESTIMATES
- CUSTOMIZED SYSTEMS
- NOVELL WINDOWS NT NETWORKING
- UPGRADES
- HOME PAGE DESIGN
- CORPORATE
- GOVERNMENT
- OEM
- POs ARE WELCOME

Telephone:
408-733-5454
Fax:
408-733-5456
For Orders:
800-308-0818
Hardware Support:
408-733-5457
EMail:
HKGCOMP@aol.com

448 E. El Camino Real
Sunnyvale, CA 94087

Hours: Mon-Fri 9-6
Sat 10-6
Next to Charles Schwab



Calibrate Your Bogosity Detectors—It's The Web!

Plus: The Future Of Games

By Peter Linde and Sam Penrose

This month, Peter talks about why a healthy dose of skepticism is important when surfing the Web, and Sam talks about possible futures for computer games.

Everything You Read On The Web Is A Lie

By Peter Linde

What would you say if I told you that a computer is lying to you?

If you use search engines on the Web, chances are it happens to you every time you perform a search. The search engines don't mean to lie. They are just programmed to.

And what would you think about the article you just read in that online magazine if you found out that it was written by the company about which it purports to report?

Can't happen? Actually it happens all the time.

Unlike traditional practice in media such as newspapers, magazines, radio, and TV, journalistic ethics simply don't exist on the Web. You may be learning about it here first, but the truth is out there.

The credibility of what you read on the Web is rendered suspect in several ways. I'll discuss a few here, but this is by no means a complete list of the ways in which what you read on the Internet is perverted to commercial and other ends.

Buddy—Wanna Buy A Keyword?

When you go to a search engine, or use the search function of an online magazine, it's likely that you hold the belief that the results of your search will be accurate.

Here is how a search engine is supposed to work: A Web Page author registers their site with a search engine. That search engine then goes and "reads" the site. It creates an index of the all the words on that site (they generally ignore words like conjunctions, pronouns, etc.). When you use the search engine, rather than searching all the sites on all the computers on the Web, you search just the index of sites that the search engine has created for itself. This is obviously much faster and doesn't bog down the Internet quite as much.

If you are like most of us, you believe that your search results are the yield of the search engine matching the keywords you've entered against its own list of keywords from its index. Sadly, you are likely to be incorrect in this belief. I won't name any names here, but quite a few search engines sell exclusive use of keywords to advertisers. This means that if you search on a word that an advertiser has purchased, regardless of whether or not their site has anything to do with your keyword, their site will pop right up at the top of your result list.

An example might be a travel agency that buys words like, "romantic," "honeymoon," "adventure," and "escape." Their site may or may not contain these words. It doesn't matter. If they buy the words, their site will come up first in your search results.

It's also possible for Web page authors to bias search results using what's called a "meta tag" in their HTML documents. This tag allows them to place keywords that you don't see unless you choose to view the source of a document. But these keywords are definitely read by the search engines and used for ranking each document in any search results. Some documents can have hundreds of words in their meta tags.

I've Got A Bridge I'll Sell You

More serious is a little something marketers like to call "advertorial."

As the name implies, it is the combination of advertising and editorial. In reality it is the selling of editorial copy in online magazines.

Almost all online magazines sell advertising space. This is how they support themselves. After all, publishing information on the Web is not charity work. It takes time, talent, energy, money and, ideally, something to say.

Many online magazines (and certainly not all!) sell not just ad space, but the actual article space as well. Companies who want some PR can pay the magazine to write a favorable article about them. In some cases, they can even write the articles themselves. Usually, these articles do not disclose this arrangement.

As consumers of the written word in magazines and newspapers, we have come to count on the separation of editorial and advertising as being almost as sacred a division as the one between church and state provided for in the US Constitution. Print magazines that review products generally go to great lengths to make sure that the credibility of their reviews is not tainted by who gives them money in the form of advertising dollars. This is not always the case with Web publishing.

So how can you tell if the article you just read is, in fact, a paid advertisement? You can't. The most you can do is write to the publication and ask them if they have a policy about the separation of content and advertising.

You probably believe that your search results are the yield of the search engine matching the keywords you've entered against its own list of keywords from its index. Sadly, you are likely to be incorrect in this belief. Quite a few search engines sell exclusive use of keywords to advertisers.

A Sucker Logs On Every Second

The last reason for not trusting what you read on the Web is the oldest of the three: People purposely publish Web pages that are meant to deceive you.

For some reason, people who won't believe everything they read in a newspaper apparently find it irresistible to believe every single word that is fed to them from the Internet. And don't

BMUG's Choice for Macintosh Specialty Store ...Since 1985

MAC SM

Modern Accessories for Computers
Rental, Sales, Lease Available

800-BUY-A-MAC Order Line for US & CA (Toll Free!)
(510) 644-0500 General Number / Sales Department
(510) 549-8785 Macintosh Repairs
(510) 644-0584 Order by Fax Web Page: http://www.m-a-c.com
2010 Shattuck Avenue, Berkeley, CA 94704

Store Hours
10:00 a.m. -- 6:00 p.m.
MON -- SAT

ATM VISA MasterCard

"Best Place to Buy Computer" . . . Express Newspaper

Internet Corner

Free Internet Access

Free one month internet access
with any computer purchase

System 8.1 OS	$99
NetScape Navigator for Macintosh	$49
Internet Books	20% Off
Adobe Pagemill	$99
US Robotics 56K v.90	$179†

†After $50 Factory Rebate

Printer/Scanner

Apple LaserWriter 4 / 600	$895
Epson Stylus 600, w/ Cable	$249
Epson Stylus 800, w/ Cable	$369
HP Laserjet 6MP	$949
HP Laserjet 4000TN	$1895
HP LaserJet 4MV, 11X17 Size	$2895
UMAX Astra 610 Color Scanner	$149
UMAX Astra 1200 Color Scanner	$249

Computer Upgrade

RAM Super Sale	
8MB Dimm	$49
16MB Dimm	$79
32MB Dimm	$109
64MB Dimm	$199
32MB G3 Dimm	$109
64MB G3 Dimm	$199
128MB G3 Dimm	$379
16MB, PB 1400	$129
32MB, PB 1400	$199
Others Available	

Hard Disk	
Quantum 2GB	$279
Quantum 2GB IDE	$269
Quantum 4GB	$379
Toshiba 4GB 2.5"	$499
Toshiba 2GB 2.5"	$399
External 3.5"Case	$99
External 2.5" Case	$79

Micropolis 2 GB AV $269

Call us for On-Site Printer Repair

Back Up Drives

ZIP Drive w/ 1 Cart	$139
ZIP Drive Plus w/ 1 Cart	$199
iomega ZIP Drive Cartridges 1 Pak	$15
iomega ZIP Drive Cartridges 3 Pak	$42
iomega JAZ 1 Gig Removable Drive	$299
JAZ Cartridge- *3 or more Special*	$89

La-Cie Drives

La Cie 24X CD Drive	$179
La Cie 4X8 CD-R Recordable Drive	$499
La Cie 2X6 CD-R Recordable Drive	$399
La Cie 4Gig Hard Disk	$379

EtherNet Corner

PCI Ethernet Card	$59
LC Ethernet Card	$89
5-Ports Ethernet Hub	$65
9-Ports Ethernet Hub	$90
LAN Starter kit-5-Port Hub & 3 PCI Cards	$279
Friendly Net Adapter-AAUI--> 10T	$39
Etherwave Printer Adapter-Appletalk ->10T	$295
Lan Tester Tool Kit	$159
Remote Cable Tester	$69

HELP!
Macintosh not working?
We can fix it quickly!

G3 PowerMacs

PM G3/233mHz

32MB/4000HD/24xCD

$1699

PowerMac	Price	Lease
G3/233DeskTop, 32/4GB/CD	1699	64
G3/233Tower, 32/4GB/CD	1999	
G3/266DeskTop, 32/4GB/CD/ZIP	1999	76
G3/266Tower,32/6GB/CD/ZIP/AV	2499	94
G3/300Tower, 64/4GBW/CD	3395	128
PowerBook		
PB 1400cs/166,16/2G/CD		1749
PB G3/233 12" STN/2 32/2G/CD No FD		2299
PB G3/233 12" STN/2 32/2G/CD/Modem		2579
PB G3/233 13" TFT/4 32/2G/CD		2999
PB G3/233 14" TFT/4 32/2G/CD		3499
PB G3/250 13" TFT/4 32/4G/CD/Modem		3899
PB G3/292 14" TFT/4 64/8G/CD/Modem		5599
Display & Printer		
LaserJet 6MP, 600dpi Printer	949	41
Sony 100GS 15" Multisync monitor	399	16
Sony 200GS 17" Multisync monitor	**699**	**30**
Sony 400ps19" Multisync monitor	995	45

Trade In Your Old Mac
Dead or Alive
68040 Min./Desktop, 68030 Min/PB

Financing Available
Corporate Leasing Available
90-Day Interest Free Finance
36Mo/$1 Lease, $3000-$8000 category. Business Only, Tax Not Included

Macintosh Rentals

Security Deposit Required

PM 8500	Mac 7200	PowerBooks	PowerMac G3
16MB/1G HD	8MB/500HD	Starting at	32MB/4GHD
$359	**$199**	**$139**	**$299**
Monthly	Monthly	Monthly	Monthly

Expert Macintosh Repairs

Monitor	Macintosh	Printer
•All Makes & Models	•All Mac Models Upgrade & Repair	•All Makes & Models
•Authorized Radius Service Center	•**Data Recovery**	•Laser Printers
•3-5 Days Turn-Around	•Component Level Repair	•Ink Jet Printers
•Loaner Available	•While-U-Wait Service	•On-Site Service Available
	•On-Site Service	•3-4 Days Turn-Around
	•1-2 Days Turn-Around	•Loaner Available

Specials

Apple System 8.1 OS	$99
Teleport 56K Modem v.90	$159
iomega ZIP Drive	$139
Abuse	$25
Games of Fame 3	$20
FA 18 Korea	$49
Myth	$45
Diablo	$49
Quake	$49
RIVEN	$49

Diablo Arrived!

Bring This Coupon for Special Prices

*No interest for 90 days, call for details. Prices subject to change without notice, not responsible for errors. This Ad Expires Aug 15, 1998

worry, if you fell for a virus hoax, or learned from the Web that the earth was flat after all, you are not alone. More than one traditional news agency has been fooled by "research" they have done on the Web. Without bothering to check beyond a Web search, news agencies have been duped into broadcasting items that were false.

Why do people publish things on their Web pages that they know to be false? A lot of people do it for fun, just to see who they can catch. Others do it with a specific target in mind (like a news agency). Either way, because anyone can publish in this new medium, you need to be skeptical of everything you read.

What can we do? As far as individual Web publishers, you can't do much. And in truth, I wouldn't want you to. The existence of a medium with so low a barrier to entry, that allows just about anyone in the world to get a global audience for their thoughts, is an exciting thing. Freedom of speech is a critical component to the medium's power. Just teach your children (and yourself, while you're at it) to think critically. That's about the best protection you can have. Be skeptical.

The fact that a computer is sending you information does not make that information accurate. Remember the HAL 9000?

However, online magazines should be held to a higher standard. They should conform to the same journalistic ethics that print and broadcast media are held to for separation of content and advertisement. If you are a regular reader of an online journal, write to the editor and ask for their policies regarding advertorial and the sale of key words in their search engines. Ultimately, if they want to be paid for their articles, that's fine, but they should post that arrangement along with the article.

If you have questions or comments about this topic, please send me some email (along with your social security number, two forms of picture ID, and three professional references) to *MicroTimes_Column@bmug.org* .

At Play In The Metaverse

By Sam Penrose

Two months ago in this space (*www.microtimes.com/178/bmug.html#sam*) we looked at some of today's computer games and how they created their little worlds. I argued that they seemed to fall into one of two categories: "physics" games such as *Myth* and *Quake*, and the "story" games *Myst* and *Riven*.

Each kind of game offers its own compelling experience, but both seem to have limited futures. The makers of physics games are stuck on simulated violence. The story games advance a hokey (if effective) story line by endless mouse-clicks. Both work by giving players the opportunity to move around in fantasy worlds borrowed from J.R.R. Tolkien's Middle Earth and old science fiction—a rather limited set of clichés.

Those clichés may be swept aside by new ideas, but computer games are also limited by technology. *Myth* and *Riven* barely run on four-year-old computers like my Power Mac 7100/66, which represents something close to the median of the installed base. Even on the newest computers, today's games push hard against the limits of the current PC form: *Riven* forces players to swap CD-ROMs in and out, while *Myth*'s keyboard-and-mouse interface turns the harder levels into a test of one's typing skills. One can easily see *Riven*'s descendants exceeding the capacity of upcoming DVD-ROM standards.

Myth's predecessor, the *Marathon* series, mapped 29 of the 87 different keys on my extended keyboard, a manageable 15 per hand. *Myth* maps 49 of 87 while demanding simultaneous mouse use, effectively forcing me to control all 49 with just one hand. It's hard to see how even *Myth*'s ingenious inventors at Bungie Software will extend that trend for their next game.

An optimist would project the future from what these games do well. *Riven* realizes a world richly sensuous in sight and sound. *Myth* throws you into exhilarating contests with other people over the Internet. The former effort is limited by storage space and processing power, the latter by bandwidth. When those limits have been exploded by the passing of a few years, what will software engineers come up with?

No one knows, but in 1992 Neal Stephenson made some interesting guesses in *Snow Crash*, a 470-page exercise in technological futurism thinly disguised as a novel. In *Snow Crash*, skateboarders ride on freeways instead of sidewalks. Dogs run on nuclear isotopes. And the text-based Internet becomes a three-dimensional "Metaverse."

The Metaverse, which Stephenson invented around the same time that Tim Berners-Lee and cohorts invented the World Wide Web, is a set of places defined and linked by common software protocols, just like the Internet and its subset the Web. It is a "realistic" world of sight and sound...or at least as realistic as a character's hardware, software, and bandwidth allow.

The analogy is roughly DOS:Mac/Windows: *Myth/Riven*:TCP/IP:WWW:Metaverse, except that the interface advantage today's games enjoy over today's GUIs comes at the expense of usefulness, while the fictional Metaverse is vastly more useful than today's Web. Players "move" in *Myst* and *Riven* via keyboard and mouse; the Metaverse fully immerses Stephenson's characters in a computer-generated universe of sight and sound via holographic projection of their avatars.

Imagine being Bugs Bunny in a cartoon. Now, imagine that the cartoon has been spliced together with footage from *Star Wars*, *The Seven Samurai*, *Koyaanisqatsi*, and every other movie you've ever seen, all the worlds connected, all the characters interacting, and many of them "directing," "costuming," or "editing" the movie as it plays by rewriting the software. That's the Metaverse.

There people play games (fighting with swords *a la Myth* and racing motorcycles at thousand of "miles" per hour), but also network, people-watch, and even work. Individual computers are "rooms" in the Metaverse just as Windows 98 treats local hard drives as Web sites.

Riven's lush sense of place is available to anyone with the desire to customize their own machine. *Snow Crash* implies that today's division between computer games and productive applications is an artifact of interface limitations. At one point *Snow Crash*'s protagonist (named "Protagonist" in one of Stephenson's cute/irritating winks at the reader) moves from a business meeting to a swordfight with no more transition than a shift in the "direction" his avatar happens to be looking.

This is, I think, a wonderful insight. Today's computer games provide space for play by trading flexibility for relative intensity of experience. If you want to shoot space aliens, you are stuck looking at a few images and diddling a few keys until you get bored and do something else. In the real world, the lines between play and work are not so clear. To the dismay of managers everywhere, both are deeply rooted in human experience. Stephenson suggests that the maturation of computers as tools is inseparable from their maturation as toys—one might look at today's automotive industries to see what such a blurring of the lines looks like.

There are many more sharp and entertaining conceits in *Snow Crash* than I have room to list here. If you are interested in the future of computing, I recommend this seven year-old book. Like any attempt to project the future, Stephenson's ideas will certainly be proven wrong in many respects, but that shouldn't stop him or us from playing with these fantasies.

Good futurism is useful fun.

Feedback on this or previous columns welcome at *MicroTimes_Column@bmug.org* . ◆

Copyright © 1998 by Peter Linde and Sam Penrose. All rights reserved

Resources:

Snow Crash
By Neal Stephenson
Bantam Spectra 1993.

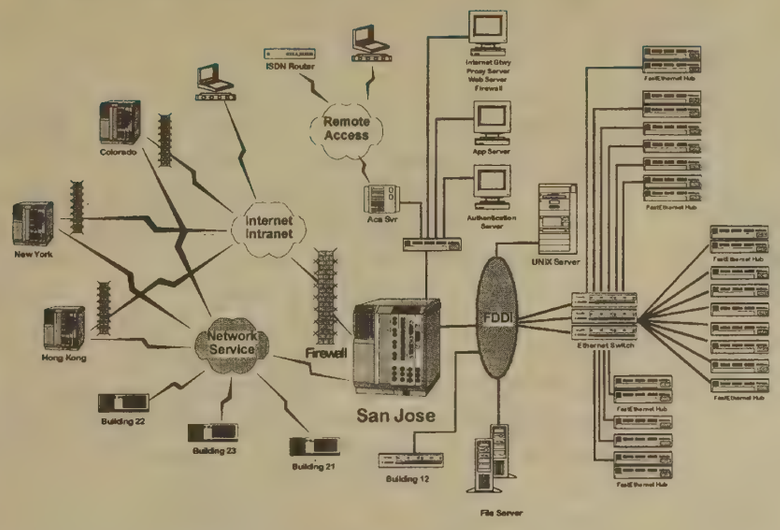
YOUR TOTAL SOLUTION PROVIDER

NETWORK ASSOCIATES CORPORATION SINCE 1987

Novell Authorized Service Center

Microsoft SOLUTION PROVIDER

SMALL BUSINESS SERVERS



MIS EXTENSION SERVICES

Novell • UNIX • NFS • TCP/IP • Mac • Windows NT
Switch Router Server • PC • JukeBox Printer
Internet Gateway • Remote Access • Modem Pool
ISDN • Frame Relay • T1 • SMDS • ATM • FDDI
FireWall Database • GroupWare Security

3Com IBM Cisco Systems Novell Hewlett Packard

Authorized Service Center
System Design • Installation • Training • Maintenance
Application Development

Bay Networks Ascend IBM Novell Compaq Tektronix Hewlett Packard US Robotics digital 3Com Cisco Systems NEC

SMALL BUSINESS SERVER (SBS)

- Windows NT 4.0 w/10 Client Access Lic.
- MS Exchange v5.5 w/10 Client Access Lic.
- Fax Server
- Printer Server
- Proxy Server
- Corporate Calendar & Scheduling
- Internet Connection

MIS EXTENSION

- Remote Diagnostic & Support
- Integration Support
- On-Site Technical Support
- On-Site Engineer: Short & Long Term Assignment
- Migrations & Project Assignment Contract
- Network & System Maintenance (open contract)
- On-Line Network Administrator

intel® Networking Products

Express Scalable Switch 10/100 Model Fast Enet 24-Port	$2438
Express Router 9100, X.25 Frame Relay, 2 Wan Ports	$852
Express 10/100 Stackable Model Hub 12-Port	$776
Express 10/100 Stackable Model Hub 24-Port	$1114
Express 10/100 Stackable Auto-sensing 12-port Hub	$821
Express 10/100 Stackable Auto-sensing 24-port Hub	$1155
8 Port 10/100 Layer 3 Routing Switch	$2073

Cisco Systems

FastHub 12-Port 10/100 Model Autosensing	$789
FastHub 24-Port 10/100 Model Autosensing	$1243
SSI Switch 3000 12Port RJ45 10/100 Switch w/Mgmt	$1340
2501 Ethernet/Able Model Dual Serial Router	$1730

intel® Small Business Products

In Business 8 Port Fast Hub Plus	$443
In Business 8 Port Switch Plus	$705
In Business Internet Station	$387
In Business 8 Port Fast Hub Plus	$466

CHEYENNE

Archserver v6.5 Win NT CD	$442
Archserver Ent. v6.54 Win NT CD	$887
Tape Library Option v3.0 Win NT CD	$337
Inoculan SS v4.0 Win NT CD	$561

NETWORK ASSOCIATES CORPORATION

VISIT OUR WEB SITE: WWW.NAC.COM
SUNNYVALE: 408-733-2600 • FREMONT: 510-249-2100
FAX: 510-249-2121 • e-mail: sales@nac.com

Surf The Net, Go To Jail

PHOTO: DAMIEN LEWIS

Owning A Modem Or Fax Machine In Burma Can Kill You

By Dan Orzech

On May 23, 1996, James Nichols, a 65 year-old businessman, was sentenced to three years in prison by the military regime ruling the South-East Asian country of Burma.

His crime? Owning a fax machine without permission.

In 1989, during the Tienanmen Square uprising, news of what was going on in China slipped out of that country via faxes, and spread like wildfire on the Internet.

The generals running Burma, which is sandwiched between China, India, and Thailand, are determined not to make that mistake. A decree issued in 1996, mandates prison sentences of up to fifteen years for owning a modem or a fax machine in that country without government permission.

Nichols died on June 22, 1996, under mysterious circumstances, after serving only a month of his sentence in Burma's infamous Insein prison. He was honorary consul in Burma for Denmark, Norway, and Finland, and his death caused a furor in Europe. The European Union has repeatedly called for an investigation of the circumstances of his death, a demand that the generals in Burma have ignored. The US, Canadian, and Australian governments have also demanded an investigation, and Nichols' family, who live in Australia, has announced its intention to sue the generals in Burma over his death.

For four nights in a row before his death, says a just-released political prisoner who was in prison at the same time, a hood was put over Nichols' head, and he was taken away and interrogated until daybreak. While political prisoners in Insein are routinely tortured, Nichols was singled out for special attention because of his friendship with Burma's democratically elected leader, Aung San Suu Kyi. Mrs. Suu Kyi, winner of the 1991 Nobel Peace Prize, has been held under house arrest for most of the last nine years.

Nichols real crime was not owning the fax machine, but using it, reportedly, to relay messages outside Burma for Aung San Suu Kyi. While Nichols' case has attracted attention because of his connections with the West, his treatment at the hands of Burma's military is far from unusual. For those living in the West, where using a fax machine, a telephone or a copier without fear of Big Brother looking over your shoulder is taken for granted, it provides a chilling example of how control over information technology can be used in the service of evil.

Welcome To The World Of 1984

There's a joke making the rounds in Burma, about George Orwell's book *Burmese Days*. "If you liked Orwell's first book about Burma," say the Burmese, "you'll love the sequel: *1984*."

In Burma, the world of *1984* is no joke. Access to Burma's two ISPs is tightly controlled. Importing computer software without permission is punishable by 5 to 10 years in prison. So is importing information banned by the government. The military maintains an iron grip on newspaper presses, video tapes, and copy machines... not to mention television, radio, and book publishing.

In April, the Burmese military kicked FedEx, UPS, TNT and other air express companies out of Burma. All overseas express packages are now routed through a joint venture between the government Posts and Telecommunications agency and DHL Worldwide Express, allowing the military to closely monitor any packages which may contain political information.

The military even controls who gets a phone line. "You can't get a phone line if you don't have connections," says Coban Tun, a Burmese computer programmer who lives in San Francisco. "Ordinary people make perhaps 10 or 20 dollars a month, but they charge 1,000 dollars for a phone line. You can't pay in Burmese currency, either—they want it in dollars."

And, say democracy activists, the secret police—Burma's Military Intelligence, and its network of informers—are everywhere. "No one dares talk about current affairs or mention the word democracy because of the constant monitoring and phone taps," says Zar Ni, a Burmese student at the University of Wisconsin and founder of the Free Burma Coalition.

But while access to the means of communication is tightly controlled, the military itself makes wide use of high-tech systems to keep tabs on the democracy movement inside Burma.

Cellular phones from companies like Ericsson or Nokia, for example, are impossible to obtain for democracy activists, but widely used by Military Intelligence.

And recent reports indicate that the Burmese army is using the latest in Western technology to build a state-of-the-art cyber-warfare center in Rangoon. Built by an unnamed Singaporean company, the high-tech spy center "has been optimized for tapping domestic phone, fax, and email lines," according to an article in the September *Asian Defense Journal*.

One of the key targets of the center is the satellite telephone conversations of Burmese opposition groups, according to the March 1, 1998 issue of *Jane's Intelligence Review*.

Given the Burmese military's stranglehold on technology inside the country, it's somehow appropriate that the rapidly-expanding movement in the West to boot the generals from power got its start on the Internet.

Determined to catch any more would-be Leo Nichols, the spy center is also listening in closely to both regular phone and cellular phone calls and watching the faxes and email of foreign businessmen whom the government believes might be passing along messages for Aung San Suu Kyi or democracy activists.

Fighting For Freedom, On The Net

Given the Burmese military's stranglehold on technology inside the country, it's somehow appropriate that the rapidly-expanding movement in the West to boot the generals from power got its start on the Internet.

Perfect Solution Multimedia Inc.

Serving You Since 1984

7-Year Labor & 1-Year Parts Warranty on All Computers

FREE DELIVERY FOR CORP. CUSTOMERS!

Intel Pentium® II System, 440BX M/B, 64MB SDRAM, 512K, 6.4GB, 17" Sony, 8MB Fire GL 1000 AGP

- Freetech Motherboard, 440BX Chipset w/CPU Cooling Fan
- **64MB** SDRAM DIMM
- 1.44MB TEAC Floppy Drives
- **6.4GB Fujitsu Ultra** IDE Hard Drive
- Enhanced PCI HD Controller w/High Speed I/O
- **8MB Diamond Fire GL 1000 Pro AGP Graphic Card**
- Sound Blaster 16 Sound Card & 180W Speakers
- 32X Mitsumi IDE CD-ROM
- ATX Medium Tower Case w/2nd Cooling Fan
- 104 Keytronic PS2 Keyboard
- Logitech Mouseman PS2 Mouse
- **17" Sony 200ES** .25 MPR-2 Green Monitor
- 7-Year Labor, 1-Year Parts Warranty

P2-400MHz $2379
P2-350MHz $2149
P2-333MHz $2039
P2-300MHz $1919
P2-266MHz $1759
P2-233MHz $1739

Intel Pentium® II System, Freetech M/B, 512K Cache, 32MB SDRAM, 4MB Diamond 4000 AGP 4.3GB Ultra, 17" Proton

- Intel Freetech Motherboard 440LX Chipset, 512K L2 Cache
- **32MB SDRAM DIMM** (Max 256MB)
- 1.44MB TEAC 3.5" Floppy Drive
- **4.3GB Maxtor** Ultra IDE Hard Drive
- Enhanced PCI HD Controller w/High Speed I/O
- **4MB** Diamond 4000 AGP Graphic Card
- Sound Blaster 16 Sound Card & 180W Speakers
- 32X Mitsumi IDE CD-ROM
- ATX Medium Tower Case w/2nd Cooling Fan
- 104 Keytronic PS2 Keyboard
- Logitech Mouseman PS2 Mouse
- 17" Proton 1280x1024 .26 Green Monitor
- 7-Year Labor, 1-Year Parts Warranty

P2-333MHz $1539
P2-300MHz $1419
P2-266MHz $1299
P2-233MHz $1239

486 System

- 486 SX2-66/64K Cache
- 4MB RAM
- 1.44MB Floppy Drive
- 420MB Hard Drive
- IDE Controller w/IO Ports
- 512K SVGA Card
- Sound Card, Speaker & CD-ROM
- Mini-Tower
- Keyboard & Mouse
- DOS 6.22, Windows 3.11 & MS Works

$250

Pentium® T-4 (430TX) ATX Based System 512K Pipeline, 32MB EDO, 4.3GB, 2MB ATI 3D, 17" Proton Monitor

- PCI Motherboard Manufactured by FREE Technology
- Intel 430TX Chipset, ACPI Power Management
- **512K** Pipelined Cache & Cooling Fan
- 32MB SDRAM DIMM
- 1.44MB TEAC Floppy Drive
- **4.3GB Maxtor** IDE Hard Drive
- Enhanced IDE, Supports Ultra DMA/33 High-Speed I/O, Two USB Ports
- **2MB ATI 3D Changer, Graphics Card**
- ATX Medium Tower Case with 2 Cooling Fans
- 104 Keytronic PS2 Keyboard
- Logitech Mouseman PS2 Mouse
- 17" Proton 1280x1024 .25 (NEC Tube) Green Monitor
- 7-Year Labor Warranty, 1-Year Parts Warranty

233MMX $999

PS Performance System Pentium® Based System 16MB, 3.2GB, 15" Proton Monitor

- PCI Motherboard Manufactured by FREE Technology
- Intel 430 VX Chipset, **512K** Pipelined Cache & CPU Cooling Fan
- **32MB** SDRAM DIMM
- 1.44MB TEAC Floppy Drive
- **3.2GB Fujitsu** Hard Drive
- Enhanced PCI HD Controller w/High Speed IO
- **2MB S3 Virge 3D** Graphics Card
- Medium Tower Case
- 104 Keytronic Keyboard
- Logitech Mouseman PS2 Mouse
- 15" **Proton** 1280x1024 .28 MPR-2, digital, Green Monitor
- 7-Year Labor Warranty, 1-Year Parts Warranty

233MMX $779

AMD K6 200MHz, 16MB, 3.2GB, CD, 33.6 Modem, SVGA NI

- Intel 430TX Chipset, 512K Cache
- 16MB EDO RAM
- 3.2GB Fujitsu Hard Drive
- 1.44 TEAC Floppy Drive
- Enhanced PCI Controller
- 2 Serial, 1 Parallel Ports (High Speed)
- 2MB S3 Virge 3D Graphics Card
- 33.6 Voice Fax Modem, Sound Card, & Speakers
- 24X Unitron CD-ROM Drive
- Mini Tower w/Power Supply
- 101 Enhanced Mitsumi Keyboard
- Mitsumi Mouse
- 14" Impression 1024x768, .28 SVGA Non-Int. Monitor
- CPU Cooling Fan
- 7-Year Labor Warranty, 1-Year Parts Warranty

$719

CONTROLLERS
IDE w/I/O $25

SOUND CARDS
ESS 1869 Sound Card w/3D Sound $25
Sound Blaster 16 49
Sound Blaster AWE 64 79

FAX MODEM
33,600 Voice/Fax Modem $49
56K Voice/Fax Modem 79
US Robotics 56K w/Voice Int. 119

SVGA NON-INTERLACED MONITORS (Green)
14" Impression 1024x768 .28 ..... $145
15" Proton 1280x1024 .28 Green Digital 199
17" Proton 1280x1024 .26 399
17" Sony 200ES 1280x1024 .25 549

CASE & POWER SUPPLY
Mini Tower w/230W $39
Medium Tower w/230W 52
ATX Form Medium Tower. 79
ATX Form Full Tower 94

MOUSES
Logitech Mouseman PS/2 or Serial $29
Mitsumi Serial Mouse 9.50
Mitsumi PS/2 Mouse 12

OPERATING SYSTEM
(w/System Purchase)
Windows 95, CD (SR-2) ver. $89

DRIVES
Teac 1.44MB $29
Panasonic 1.2MB 46

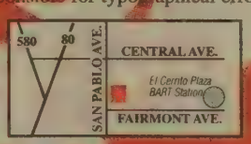
DISPLAY CARDS
1MB Cirrus Logic $39
2MB S3 Virge 3D 39
2MB ATI 3D Changer 59

MULTIMEDIA KIT
. 32X Mitsumi IDE CD-ROM
. 70 Watt Speaker
. American Concise Encyclopedia w/ESS Sound Card, 3D Sound. . . $119
w/ESS Sound Blaster 16 Sound Card. $144
w/Sound Blaster AWE64 Sound Card. $174

MULTIMEDIA
32X Speed Mitsumi IDE CD-ROM Drive $79
60 Watt Speakers, Magnetically Shielded $19

Prices subject to change, not responsible for typographical errors. Pentium is a registered trademark of Intel Corp.

10032 San Pablo Ave.
El Cerrito, CA 94530
(510) 527-6908



VISA
COD
MasterCard

OPEN 6 DAYS
Mon-Sat: 9:30am to 6pm
FAX (510) 527-3823

With no budget for telephone calls, advertising or glossy pamphlets, Zar Ni, who founded the Free Burma Coalition (*http://danenet.wicip.org/fbc*) in 1995, began using the Net to publicize the situation in Burma.

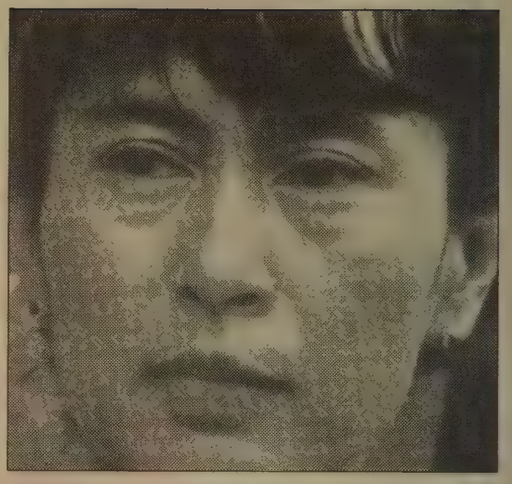
His Internet postings struck a chord among students, many of whom had recently seen the film *Beyond Rangoon*, which chronicled the bloody events of August 1988, when the armed forces in Burma shot thousands of students, Buddhist monks, and other pro-democracy demonstrators in the streets of Rangoon.

Soon, the email was flying, as students on nearly 75 college campuses in the US took the Pepsi-Cola company to task for its continued presence in Burma. After getting kicked off campus at Harvard, Stanford, UC Berkeley, and a number of other schools, and losing an estimated six million dollars in the process, Pepsi threw in the towel, announcing in January 1997 that it was pulling out of Burma. *USA Today* called it the "first revolt in cyberspace."

Today, the Free Burma movement has exploded into one of the most popular movements for human rights since the South Africa movement of the 1980s. Bishop Desmond Tutu of South Africa, in fact, calls Burma the "South Africa of the nineties." Using the anti-apartheid laws of the 1980s as a model, some 20 US cities and counties, including San Francisco, Oakland, Berkeley, and Alameda County, and the state of Massachusetts, have passed "Free Burma" purchasing laws. Similar laws are being considered in Los Angeles, Seattle, Minneapolis, and several state legislatures.

In response, dozens of Western companies, including many high-tech firms such as Apple, Oracle, Hewlett-Packard, and Motorola, have pulled out of Burma, cutting into the military's ability to finance it's arms and technology purchases. In May of last year, the US government banned any new investment in Burma by American companies, and the Canadian, British, and Norwegian governments have begun pressuring their companies to withdraw as well.

Back in Rangoon, meanwhile, Aung San Suu Kyi remains confined to her house by the military, forbidden to meet with journalists. The road leading to her home is blocked, and visitors are restricted. And when she picks up her telephone to make a call—if it works at all—the clicks on the line remind her that Military Intelligence is still listening. ◆



Top: Aung San Suu Kyi, winner of the 1991 Nobel Peace Prize, has been held under house arrest for most of the last nine years; bottom: The Free Burma Coalition was founded by Zar Ni, a Burmese student at the University of Wisconsin.

Copyright © 1998 by Dan Orzech. All rights reserved.

SERVICE FIRST!

Great systems at unbelievable values a close second

Upgrades & Accessories

Yamaha Soundcard	$19
ESS Soundcard	$15
S/B 16	$39
S/B 64	$70
USR 33.6/56K	$69/99

Monitors:

14"/15"/17"/19"	$119/149/289/769
Diamond 2000 Pro 4MB PCI	$95
Mill II PCI 4/8MB	$129/189
Viper V330 4MB PCI/AGP	$90
Monster 4MB PCI	$129
Monster II 12MB PCI	$268

Business Solutions

CyberTek Can Assist You With:
- Network Consulting
- Rack Mount Systems
- Single Board Computers
- Passive Backplanes
- Industrial Monitors
- Hot Swap and Redundant Power Supplies
- RAID Systems
- Print Servers

CyberTek System

• M/B, case, cpu+fan, 14" Monitor, Keyboard, Mouse, 32MB RAM, 2MB Video, 2.1GB HD, FD, 24X CD, SC, Speakers, Windows95

Pentium®		Pentium® II	
166MMX	$760	233MMX	$958
200MMX	$770	266MMX	$1000
233MMX	$790	300MMX	$1119
266MMX	$855	333MMX	$1351
300MMX	$945	350MMX	$1457
		400MMX	$1650

Computerific!
FREE 3 Hours of Windows Instruction from Computerific with Every New System!

Custom Order a Computer That Suits Your Needs

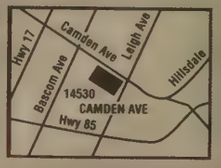
Try Customizing with Great Products, including:
AMD 3Com HEWLETT PACKARD USRobotics intel FUJITSU IBM ACER UMAX

CyberTek Computer
THE GRID

Your friendly neighborhood computer store!
Come in and let our helpful staff help you build the right computer for you.

14530 Camden Ave. • San Jose, CA 95124
Tel: (408) 559-9499
Fax: (408) 559-3114

Prices and availability subject to change without notice. Limited stock on sale items. Not responsible for typographical errors.



Netscape: MicroTimes, California's Computer Magazine
Back
Home
Reload
Images
Open
Print
Find
Location: http://www.microtimes.com/
What's New?
What's Cool?
Destinations
Net Search
People
Software
MICROTIMES
Home | Overview | About MicroTimes | Current Issue | Past Issues | Family and Friends | Great Mall of MicroTimes | Quotation Netline | Netsurf | Resources | Publishing Schedule |
Welcome to the MicroTimes Web Site!
What's New?
If you're a company with over 40 employees and would like to receive MicroTimes, please contact us!
Bay Area:
(510) 768-1200
Debbie Tisdale
Southern California
(626) 584-9155
Steve Moore
Issue #180
For this year's foray into Digital Showbiz, i.e. the convergence between technology and the entertainment business, Herb Mendelsohn, Our Man in Hollywood, reports on recent developments in computer animation and how they're saving the studios big bucks. Jill Barnes offers suggestions of Web sites for the movie buff; David Kline speculates about online trading in entertainment properties, and Jonathan E. takes a cynical look at Microsoft's plans in the content arena.
In other Microsoft-related news, Lotus founder Mitch Kapor presents his views on why the Department of Justice needs to intervene.
MICROTIMES
Document: Done.

MICROTIMES ON THE WEB

What's New At www.microtimes.com

- Visit the new, improved **Great Mall of MicroTimes**, where it's even easier to get to the Web sites of our advertisers.

  Now you can **search** the Great Mall for just what you're looking for, whether networking hardware, a local ISP, or a new CD-ROM drive. Enter your criteria, launch the search, and links to the matching advertisers appear.

  Also, don't miss our **Quotation NetLine**, which allows you to simultaneously query dozens of dealers about your next system and solicit competitive bids.

Now Available

- Find past stories fast—a **searchable database** of past *MicroTimes* stories is on this site. You can search by title, author, and/or subject.
- More listings in the **Great Mall**—visit our advertisers' Web sites for great deals and helpful info.
- Reader-submitted **Web listings** for your Net-surfing pleasure.
- **SuperStop listings** and a searchable database to help you find a copy of *MicroTimes* fast!

MicroTimes offices: 1300 Clay St., Ste. 820, Oakland, CA 94612 (510)768-1200
55 S. Lake Ave., Ste. 540, Pasadena, CA 91101 (626)584-9155 • 801 E. Katella, Ste. 210, Anaheim, CA 92805 (714)939-2809

Internet Shibboleths

What Your Speech Says About Your Online Life

By John S. Quarterman

You used to be able to tell a computer salesman who didn't know the Internet because they would always say "TC-IP" instead of "TCP/IP." I don't know what was so hard about that other P, but they wouldn't say it.

At a conference just now in Minneapolis, a prominent statistician referred to his "email number."

Does that make you wince, like it did me? It may be that a telephone number could be as natural an analogy as a paper mail address for what we put in the To: line mail message. But it isn't what anybody who has used electronic mail for any amount of time would call an electronic mail address.

I've been called the granddaddy of Internet monitoring, so feel free to picture me hobbling around with a cane, my white whiskers curling in the breeze, sort of like a cross between Uncle Sam and Colonel Sanders. (I still fondly remember the time I was walking through Shinjuku next to Ed Gould, himself also a rather large whiskered male type, and all the Japanese advertising girls went "Fatharu kurisumusa!")

Surely if you've been on the Internet for more than a year you've noticed a bunch of newcomers following after you. And about half of you probably have been on for more than a year. That's the way doubling in size every year works: Every year there are as many new Internet users as there were total users the year before.

Have you noticed the new users take a while to acculturate? You can usually spot the newest ones pretty easily. They complain when they get two copies of a message, and they can't figure out why that would happen. This often happens when somebody replies to a message the newbie sent to a mailing list. If the reply has a To: header in addition to copying the list, the original sender gets two copies: One because of the Cc:, and one through the list.

Or the newcomer complains of getting too much mail after receiving five messages in a single day.

Or you send them mail and they call you on the telephone.

Or you send them mail and (much worse) they send you a fax back!

Okay, this kind of behavior is fairly easy to spot. Fortunately, most newcomers do acculturate pretty quickly and stop doing it. Well, except for lawyers, who just love their faxes. And high-level executives, who just love their telephones. You know, the type who wishes out loud that electronic mail could be as easy to use as the telephone, and who has his secretary print out his mail. It was an executive type who said "email number."

Say The Secret Word...

Which leads me to the real topic of this column. What words or phrases mark a newcomer as a newbie? What terms are gaining popular usage despite the cane-waving of us old fogies? What just sounds so Cockney it would preclude an invitation to the Queen's Tea? I mean to include different terms for the same thing, different meanings for the same word, and different pronunciations of the same word. Any sort of verbal snobbery will do.

For example, do you pronounce URL as three syllables, as in You Are Ell? Or as a single word, as in Earl? If you're an old fogie like me, you sound out each letter in the acronym. If you're of one of the new generations (an Internet generation comes along about every 1.5 to 2.5 years), you may refer to Earls.

For that matter, do you remember it stands for Universal Resource Locator? If you never knew that, you're definitely a newcomer. Did you know the acronym expansion, and also the Earl pronunciation makes you want to hurl? You're definitely an old-timer, at least in Web-era Internet terms. (The first use of the Earl pronunciation that anybody I know can remember was by Daniel Dern when he jokingly referred to himself as the Duke of URL.)

This kind of thing also sometimes is a simple regional dialect difference. For example, there always used to be people who pronounced USENET as two syllables (as in Yooz Net), and those who pronounced it as three (Yoo Suh Net). The latter tend to be from the

We Will Meet or Beat Any Advertised Price...
Your Network Specialists – Callan Corp.

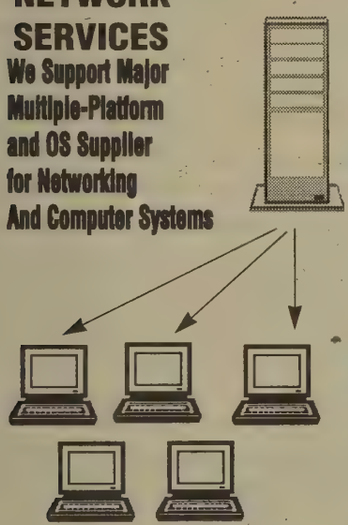
NOVELL, NT, UNIX • SYSTEM INTEGRATION • UPGRADE • INTERNET WORLD WIDE WEB • E-MAIL SERVER
FTP SERVER • DNS SETUP AND CONSULTATION • CUSTOMIZED HOME PAGE • DESIGN AND SETUP

SPECIALIZED HARDWARE	NETWORK SERVICES	INTERNET SERVICES	PROGRAMMING SERVICES	APPLICATION SOFTWARE
• NT Servers • Novell Servers • RAID Servers • Application Servers • Backup Servers • Customized Configuration Available	• Novell, NT & UNIX • Network Integration • LAN/WAN Design & Implementation • Network Maintenance • Hardware On-site Services • Remote Diagnostic Support • Cable Installation & Troubleshooting	• Site Planning and Preparation • Gateway Solution Consulting • Equipment Provisioning • Hardware & Software • Configuration • Complete Internet Solutions	• Internal and Contract • Programming Services • Software Integration • Consultation	***Support and Implementation for All*** • Microsoft® Products • Vertical Turnkey Solutions • Custom Database Solutions

BEST PRICES IN TOWN ON:

DATA/PHONE CABLING EXPERTS
Complete Panasonic Product Line
• Fast Ethernet 10/100 MegaBit Cards • Fast Ethernet Hubs PC Card • Remote Access • WAN Connectivity • E-mail • Internet Solutions • Network Printing Solutions • Network Fax Solutions • Uninterruptible Power Supplies • Ethernet Switches • Server Mirroring • Windows NT Solutions • Tape Backup Solutions

NETWORK SERVICES
We Support Major Multiple-Platform and OS Supplier for Networking And Computer Systems



AUTHORIZED DEALER

PANASONIC PHONE SYSTEM
Digital Super Hybrid Telephone System Call
KX-TD816/KX-TD1232 . . . . . Call
Voice Processing System KX-TVS200. Call
Hybrid System Telephone 7000 Series Call
Digital Super Hybrid System Telephones 7200 Series . . . . . Call

CABLE
LEVEL-3/5 1000FT. Cable . . . . . Call
BNC RG 58 100FT cable . . . . . Call
Patch Cable 3'/7'/14'/25'ft . . . . . Call
Patch Panel 24/48/96 port . . . . . Call
19" Floor Mount 7' Rack. . . . . Call
BNC, 10 BASE cable . . . . . Call

NETWORKING OPTIONS
NE 2000 Compatible Jumperless 16bit $18
9port Hub (810 Base T+1COAX) $65
16 port hub (16-RJ45,1 BNC+1AUI) . . $110

3Com® CARD & HUB
NETWORK CARD
3C509-B-TPO/Combo. $59/78
3C905 TX 10/100 10 Base T . . $65
3C589 PCMCIA Lan Adapter. . . . Call
HUB
3C250B Superstark 12 port 100 BST Call3C16406 Superstark 24 Autosense . Cal3C16610 Superstark 12 Autosense . Call

intel. CARDS & HUB
NETWORK CARD
Intel PILA 8465B PCI 10/100 MBPS $57
HUB
Intel Inbusiness Fast Hub 4 port/8 port/ 8 port plus . . . . . Call
Intel Business Switch 8port/8port plusCall
Intel Business Internet Station . . . . Call

PRINTER SERVER
HP Jet Direct Card/External single port/3 port . . . . . Call
Intel Netportexpress Pro/100/external single port/3 port. . . . . Call

CISCO SYSTEMS ROUTERS
Asend p50 DX/P75/P130 . . . . . Call
CISCO 2501/2514/2524/4500 . Call

JPS (Uninterruptible Power Supplies)
APC Smart-ups 700
NET/1000NET/1400NT

HEWLETT PACKARD
DESKTOP
Kayak XA p2-233 MMX/266MMX Call
Vectra Ve3 Pent-166MMX . . . . Call
Vectra VL5 Pent-166MMX/200/200MMX Call
Vectra VL6 P2-233MMX/266MMXCall
Vectra XA Pent-166MMX/200MMX/233MMX/PRO200 Call
TOWER
Kayak XA P2-233MMX/266MMX/P2-300MMX . . . . . Call
Kayak XU Dual P2-300MMX/P2-266MMX/300MMX . . . . . Call
Kayak Xw Dual P2-300/P2-266MMX/300MMX . . . . . Call
Vectra VL5 Pent-166MMX/200MMX/233MMX. . . Call
Vectra VL6 P2-233MMX/266MMX/300MMX. . . Call
Vectra XA Pent 166MMX/200MMX/233MMX/Pro200 Call
Vectra Xw PPRO200 . . . . . Call
SERVER
Netserver E45 P2-233/266 . . Call
Netserver LH PPRO-200 . . . . . Call
Netserver LX Dual PPRO-200 Call
Netserver LXR PPRO-200. . . . . Call
NOTEBOOK
Omnibook 2000CS/2000CT/5700CT/5700CTX/800CT . . . . . Call

COMPAQ
DESKTOP
DeskPro 2000/4000/4000N/4000S/6000Call
ProSignia 200 . . . . . Call
TOWER
DeskPro 200 MT/2000/4000/6000MT Call
ProSignia 200 . . . . . Call
SERVER
ProLiant 2500/2500R/5000R/6000/6500/7000. . . . . Call
NOTEBOOK
Armada 1530DM/1540DM/1550DMT/1580DMT/1590DMT . . . . . Call
Armada 4131T/4150/4160T . . . Call
Armada 7330T/7350MT/7710MT/7730MT/7750MT/7770MT . . . . . Call

COMPAQ IBM® Novell Gold Authorized Reseller intel. HEWLETT PACKARD PANDUIT Panasonic

CALLAN CORPORATION

3350 Scott Blvd., Building 1503, Santa Clara, CA 95054
1-888-483-4-LAN • 408-986-9786 • Fax: 408-986-9785
Web Page: http://www.callancorp.com • E-mail: Fred@callancorp.com
Business Hours: Monday-Friday 9:00 am to 6:pm, Saturday 10:00 am to 4:00 pm (PST)

Callan Corporation 1-888-483-4-LAN Network Specialist

US northeast. The former tend to be from civilized parts of the world. (Just kidding. Mostly.) Do you not know what I'm talking about until I say newsgroups? Then you were clearly born yesterday.

This pronunciation difference leads us to our title word: Shibboleth. It's a Hebrew word (I don't know what it refers to in a literal sense) that was used by Gideon about 4,000 years ago to distinguish between his Gileadites and their enemies the Ephraimaites, as recorded in Judges XII, 4-6. Those who pronounced it as "shibboleth" with an "sh" sound were let to pass across a stream. Those who mispronounced it as "sibboleth," with a sibilant "s" sound, were sent abruptly in a very different direction. The word shibboleth is thus one of the oldest examples of a password. Military organizations have been using passwords for similar purposes ever since. Computer password usages are direct descendents of military password usages.

And that's what we're talking about here. Passwords into Internet society. Or passwords that denote one as a member of a segment of that society. The secret handshake. The old-school tie. The club catchphrase. The pronunciation that indicates you learned it from the oral tradition, rather than by reading or television.

You used to be able to tell a computer salesman who didn't know the Internet because they would always say "TC-IP" instead of "TCP/IP." I don't know what was so hard about that other P, but they wouldn't say it.

In days of yore, you could always tell outsiders by the way they said "Are Pay Net" instead of ARPANET. And of course there were the hoary old wars about whether it's ARPANET, the ARPANET, ARPA-net, ARPANet, or ARPA Computer Network. Fortunately we finally won the more recent one about whether it's Internet or the Internet. But the lower-case internet usage referring to the capital-I proper-name Internet is becoming depressingly common. For that matter, do you say "I-net?" Tee-hee.

Do you know what OSI was? You've probably been on the Net for at least five years, or you're a student of network history. Do you say "you'd better have a good reason for bringing that up!"? Then you've probably been on the Net for a dozen years or more; long enough to remember when ISO-OSI was going to replace TCP/IP within two years. I heard that prediction for at least ten years. It was one of the clearest Internet shibboleths.

Do you believe it every time someone predicts the Net will croak within a year? Or do you just mutter "Imminent Death of the Net Predicted!" If you do the latter, you're One of Us.

I must say I only jokingly refer to myself as an old-timer. Even though I've been using the Internet—and the ARPANET before it—since before all my office staff were born (as I like to remind them), I'm still a newcomer compared to the real old-timers. I worked at BBN when Frank Heart, Alex McKenzie, and all the others who designed and built the first IMPs were still there. At the mere mention of their names I doff my metaphorical cap and tug my missing forelock in deference.

An example of a neologism that has passed into common parlance is "email". I don't recall ever hearing anyone at BBN say that. It was always just mail.

To determine if someone is of the first generation of ARPANET people, mention that the

HyperSurf Internet Services

1-Week Free PPP Trial!

800# Dial Service Now Available

Centrex ISDN • Frame Relay • Co-Location

Microsoft FrontPage98 SUPPORT SPECIALIST

Secure Business Transaction Services & Support

PERSONAL ACCOUNTS
UNIX Shell 33.6 Dial-Up
E-Mail
News Feed
PPP Account
FREE Support
Internet Explorer
FREE Web Page
No Set-Up Fee
$19.99/mo.

BUSINESS ACCOUNTS
UNIX Shell
33.6 Dial-Up
E-Mail
E-Mail Aliases
News Feed
PPP Account
FREE Support
Internet Explorer
CGI Scripting
www.Your Name.com
20MB Storage
$35/mo.

ISDN 1B CHANNEL
UNIX Shell
E-Mail
News Feed
PPP Account
FREE Support
Internet Explorer
FREE Web Page
No Set-Up Fee
$39.99/mo.

WEB-HOSTING & DESIGN
Complete Site Hosting
CGI Scripting
www.Your Name.com
Tape Backup
Free Support
20MB Storage
T1 Access
$25/mo.
We Also Offer Site Design

DEDICATED CONNECTION
33.6 Dial-up
Centrix ISDN
Frame Relay 56K-T1
Technical Support Services for UNIX & Windows Available
Access to Our Mail Server Included
Prices Start at $119/mo.

CO-LOCATION
T1 Connection Speed
Locations Thoughout the Bay Area
Dial-Up Access Included
All Platforms Supported
Technical Support Services for UNIX & Windows Available
Access to our News Server Included
Access to our Mail Server Included
Prices Start at $299/mo.

HyperSurf Internet Services

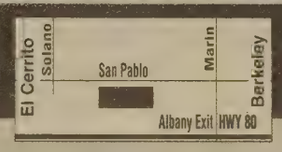
Fremont 510-608-7873
San Jose 408-261-5959
Oakland 510-986-6767
Fax: 510-608-7878 www.HYPERSURF.com
e-mail: SALES@HYPERSURF.com

DJ COMPUTERS

We have built a reputation for quality and service since 1990. We carry only high-quality, brand-name products. Our service department is efficient, reliable, and provides expert repair/installation.

BUILDING COMPUTERS FOR THE FUTURE!

926 San Pablo Ave. • Albany, CA 94706
Phone: 510/527-7697 or 510/527-7698 • FAX 510/527-3299



DJ COMPUTERS P5 Value System

- 166MHz Intel Pentium® Processor w/Fan
- Pentium® Motherboard w/512K Cache
- 3.2MB 72-Pin RAM
- 1.44MB Mitsumi Floppy Drive
- 2.1GB IDE Hard Drive
- 24X CD-ROM
- Trident SVGA Card w/2MB
- 16-Bit Sound Card
- 33.6 Fax Modem
- Hi-Speed 2 Serial, 1 Parallel, 1 Game Port
- Hi-Speed IDE Controller
- 120-Watt Stereo Speakers
- Mini Tower Case w/200W PS
- Microsoft Mouse
- 104 Enhanced Keyboard

$699

DJ COMPUTERS P5 Performer System

- 200MMX Intel Pentium® Processor w/Fan
- Intel TX Chipset Motherboard w/512K Cache
- 32MB 72-Pin RAM
- 1.44MB Mitsumi Floppy Drive
- 3.2GB IDE Hard Drive
- 24X CD-ROM
- Trident SVGA Card w/2MB
- Sound Blaster 16 PnP
- 33.6 Fax Modem
- Hi-Speed 2 Serial, 1 Parallel, 1 Game Port
- Hi-Speed IDE Controller
- 120-Watt Stereo Speakers
- Mini Tower Case w/200W PS
- Microsoft Mouse
- 104 Enhanced Keyboard

$899

DJ COMPUTERS P5 MultiMedia System

- 233MMX Intel Pentium® Processor w/Fan
- Intel TX Chipset Motherboard w/512K Cache
- 32MB 72-Pin RAM
- 1.44MB Mitsumi Floppy Drive
- 4.3GB Ultra DMA Hard Drive
- 24X CD-ROM
- 4MB ATI SVGA Card
- Sound Blaster 64 PnP Sound Card
- 56K Fax Modem
- 120-Watt Stereo Speakers
- Mid Tower Case w/230W PS
- Microsoft Mouse
- 104 Keytronic Enhanced Keyboard
- Windows 95 CD

$1190

DJ COMPUTERS P5 Super System

- Intel Pentium® Processor w/Fan
- ASUS P2L97 Motherboard
- 64MB EDO RAM
- 1.44MB Mitsumi Floppy Drive
- 6.4GB Quantum Ultra DMA Hard Drive
- 24X CD-ROM
- 4MB Matrox Millennium II SVGA Card
- Sound Blaster 64 PnP Sound Card
- 56K Fax Modem w/Voice
- 120-Watt Stereo Speakers
- Mid Tower Case w/230W PS
- Microsoft Mouse
- 104 Keytronic Enhanced Keyboard
- Windows 95 CD

166MMX . . . $1250
200MMX . . . $1290
233MMX . . . $1390

DJ COMPUTERS P II Value System

- Intel Pentium® II Processor w/Fan
- Abit Motherboard w/440LX Chipset
- 64MB SDRAM
- 1.44MB Mitsumi Floppy Drive
- 6.4GB Quantum Ultra DMA Hard Drive
- 32X CD-ROM
- 4MB ATI Expert @ Play AGP SVGA Card
- Sound Blaster 64 PnP Sound Card
- US Robotics 56K Fax Modem w/Voice
- 120-Watt Stereo Speakers
- ATX Case w/230W PS
- Microsoft Mouse
- 104 Keytronic Enhanced Keyboard
- Windows NT 4.0 Workstation

233MHz . . . $1490
266MHz . . . $1590
300MHz . . . $1790
333MHz . . . $1990

DJ COMPUTERS P II Performer System

- Intel Pentium® II Processor w/Fan
- ASUS P2L97 Motherboard
- 64MB SDRAM
- 1.44MB Mitsumi Floppy Drive
- 6.4GB Quantum Ultra DMA Hard Drive
- 32X CD-ROM
- Millennium w/8MB AGP SVGA Card
- Sound Blaster 64 PnP Sound Card
- 56K Fax Modem w/Voice
- 120-Watt Stereo Speakers
- ATX Case w/230W PS
- Microsoft Mouse
- 104 Keytronic Enhanced Keyboard
- Windows NT 4.0 Workstation

233MHz . . . $1590
266MHz . . . $1690
300MHz . . . $1890
333MHz . . . $2090

DJ COMPUTERS P II Web Cruiser w/100 MHz Bus

- Intel Pentium® II
- ASUS Motherboard w/BX Chip & 100MHz Bus
- 64MB SDRAM
- 1.44MB Mitsumi Floppy Drive
- 4.3GB Ultra DMA Hard Drive
- 32X CD-ROM
- 4MB ATI AGP
- Sound Blaster 64
- 56K Flex Fax Modem
- 120-Watt Stereo Speakers
- ATX Mid-Tower
- Microsoft Mouse
- 104 Keytronic Enhanced Keyboard
- Windows NT 4.0 Workstation

300MHz . . . $1790
333MHz . . . $1890
350MHz . . . $1990
400MHz . . . $2190

DJ COMPUTERS P II Dual CPU SCSI w/controller

- Intel Pentium® II Processor w/Fan
- ASUS P2L97 Motherboard
- 32MB SDRAM DIMM
- 1.44MB Mitsumi Floppy Drive
- 4.5 Quantum Ultra Wide Hard Drive
- 32X CD-ROM
- 4MB ATI Expert @ Play SCSI AGP SVGA Card
- Sound Blaster 64 PnP Sound Card
- US Robotics 56K Fax Modem w/Voice
- 120-Watt Stereo Speakers
- ATX Case w/230W PS
- Microsoft Mouse
- 104 Keytronic Enhanced Keyboard
- Windows NT 4.0 Workstation

Dual 233MHz . $2290
Dual 266MHz . $2590
Dual 300MHz . $2790
Dual 333MHz . $3190

- **ALL SYSTEMS CAN BE PICKED UP SAME DAY. NEXT-DAY DELIVERY TO (415) AND (510) AREAS AT NO CHARGE**
- **ON-SITE SERVICE AVAILABLE (MINIMUM $45)**
- **WE NOW PERFORM NETWORK INSTALLATIONS**
- **LET US CUSTOM DESIGN THE PERFECT SYSTEM FOR YOU!**

Upgrades Completed Within One Hour!

DJ COMPUTERS UPGRADE'S Prices Include Parts & Labor

- 486DX➡166MMX Pentium® Chip **$299**
- 386DX➡166MMX Pentium® Chip **$399**
- Pentium®➡Pentium® II **$529**
- 486➡Pentium® II **$599**

MONTHLY SPECIALS!!

Impression® MONITOR SPECIALS

WITH SYSTEM PURCHASE

Impression Vienna P21S 21" $999
Impression Vienna Pro 17" .25. . . . $549
Impression 7 Plus 17" .27. . . . . $349
Impression 5 Plus 15" .28. . . . . $209
Impression 3 Plus 14" .28. . . . . $159

Monitors Repaired From $5 and up!

ViewSonic Monitor Specials
Please Call!

CUSTOM SYSTEMS ☆ UPGRADES ☆ NETWORKS
TRADE-INS ☆ COMPUTER & MONITOR REPAIR
TEN-YEAR WARRANTY ON LABOR

HOURS:
Mon-Fri 9-6
Sat 12-4

Prices are subject to change without notice.

MasterCard VISA P.O.s

ARPANET was a Cold War project; maybe even that one of its goals was to develop network technology that could survive a nuclear war. Many of the early researchers will take great umbrage at such a suggestion. They personally were not working towards any such goal; none of the design documents ever said that; and so forth. And of course they're right. Which also of course doesn't mean it wasn't true; ARPA money was Navy money, as the researchers well knew, and at some level the answer to the question probably resides in decisions of high Navy brass and in the minutes of the Congressional committee meetings that voted the funds. But that's not the point. The point is that you can spot many of the real old-timers by their reaction to such an assertion.

By the way, do you know what an IMP was? If not, you really should do your required reading, you know, or you'll never pass the entrance exam for the club. May I be so bold as to suggest *The Matrix*, by yours truly, as a 770-page appetizer; followed by *Casting the Net*, by Peter Salus, as a pasta course; with *Where Wizards Stay Up Late*, by Katie Hafner and Matthew Lyon, as an entree; you doubtless would enjoy *Hackers: Heroes of the Computer Revolution*, by Steven Levy, as dessert.

Do you see the word hackers in that title and assume I'm recommending reading about criminals? Then you're not only a newbie; you're a newbie who has been snowed by irresponsible press stories.

When the press first discovered that there were criminals who break into computers and computer networks, they asked said criminals what they called themselves. They said "hackers," because they thought they were really smart, so they called themselves by a traditional name that indicates programming skill. The press never bothered to check on what else the word might mean or who else might have some claim to it; the press merely ran off in a pack yelping, "Hackers are breaking in! Hackers are breaking in!"

So if you only know the press meaning of the word hacker, you are definitely a newbie, no matter how long you've been on the Net. A better term for a computer criminal of this type, by the way, is "cracker."

Speaking of the press, do you "login to the

Do you believe it every time someone predicts the Net will croak within a year? Or do you just mutter "Imminent Death of the Net Predicted!" If you do the latter, you're One of Us.

SATISFACTION GUARANTEED

$88 a year

Your No Nonsense Network
YNN

Fastest + Lowest cost ISP
YNN COVERS THE ENTIRE BAY AREA

YOUR NO-NONSENSE NETWORK DECLARES
PRICE WAR!
We'll meet any challenge!

Just $7.33/mo

- 56K X2 Access - Very Fast
- Backed by 2 OC3 / 1 Hop to Internet Backbone
- Large Quantity of local access numbers
- Unlimited Access / Unlimited email account
- 50+ Thousand News Groups w/easy thumbnail navigation
- New Accounts active instantaneously!

For Corporate Users - Dedicated Internet ADSL / T1

384K/384K $75/mo
384K/1.5M $145/mo
1.5M/1.5M $695/mo

408-792-0922 or sign up on the web @ www.ynn.com

LOW PRICE GUARANTEED

Internet?" It seems to be mostly television that has popularized that silly phrase. Your computer probably has to log into a local Internet Service Provider (ISP) if you're using PPP, SLIP, or ISDN, (but probably not if you're connected by Ethernet, T-1, or T-3). But you don't log into the Internet, any more than you dial up the telephone system, or drive your car into the Interstate highway system, or turn on your television network. Apparently PC users weren't used to logins of any kind, and it was such a novelty to have to use a login name and password to get Internet access that "logging in" and "the Internet" became associated in some people's minds.

For that matter, do you know what PPP, SLIP, ISDN, Ethernet, T-1, and T-3 are, and how fast they are? Then you'd probably get along at IETF, the most and least exclusive Internet club in the world; the one that has almost no membership rules, yet that judges all its participants by the strictest standards.

On the Web front, somebody could probably write a thesis about pronunciations of "www" and "http://", as in *http://www.mids.org/* . Do you say "dubdubdub," "dubadubaduba," "dubyadubyadubya," "Web," "double-u-3," "3-dub," "triple-dub," or do you go for the full monte "double-u-double-u-double-u?" Do you say "h t t p colon slash slash" or "aitch tip?"

Should You Worry?

Do I take all this snobbishness seriously? Not really. I don't say Earl unless I'm referring to my real estate agent, and I do mention the word cracker whenever somebody misuses hacker. But I probably wouldn't refuse to eat at the same table as somebody who did differently. It's just a fun game to try to spot new usages and to note who is using them.

So welcome aboard the good ship Internet. We're always conducting a seminar here; please take a reading list. You say you've made up a song? Well, see if you can get people to sing along. You never know, it might catch on.

Thanks to Peter Deutsch, Peter Flynn, and other netscribes for provoking this diatribe. ◆

Copyright © 1998 by MIDS mids@mids.org , www.mids.org *(512)451-7602, fax: (512)452-0127, 1106 Clayton Ln., Ste. 500W, Austin, TX 78723, USA. All rights reserved.*

Do you see the word "hackers" in the title of Steven Levy's book and assume I'm recommending reading about criminals? Then you're not only a newbie; you're a newbie who has been snowed by irresponsible press stories.

INTERNET SERVICE

THE DIAMOND LANE

Your Full Service Internet Provider

◆ RELIABLE ACCESS
◆ FIBER OPTIC CONNECTED
◆ CO-LOCATION SERVICES
◆ EXPERT TECH SUPPORT
◆ WEB DESIGN SERVICES
◆ NO MINIMUM CONTRACT

FAST LANE TO THE INTERNET

(510) 293-0633
http://www.tdl.com

FIRST IN WEB HOSTING

INTERNET ACCESS
$19.95
Unlimited Usage

BAY AREA LOCAL DIAL-UP AVAILABLE

We Will Meet or Beat Any Advertised Price!

Your Network Specialists - Callan Corp.

AUTHORIZED RESELLER:
COMPAQ
Panasonic Office Automation
IBM
Novell Gold Authorized Reseller
PANDUIT
intel
hp

PLEASE TURN TO OUR FULL-PAGE AD ON PAGE 143

For All Of Your: Network, Internet, Software, Data/Phone Cabling, Hubs, Cards, Routers, and Ethernet Needs...

Don't Delay
Call Today

CALLAN CORPORATION
1-888-483-4-LAN or 408-986-9786

Telecommunications Reform: Two Years Later

Abundant Opportunities; Questionably Existent Competition

By Bill Gram-Reefer

Businesses, telecommuters, schools, government, and small and home offices want affordable high-speed services and are able to pay for them. In contrast, it is increasingly clear that hardly anyone is making money on slow, analog consumer services.

The Telecommunications Reform Act of 1996 promised a world of change for the telco arena. Primarily designed to create better, faster, and more telecommunications services through increased competition, the Telco Act opened the door to new opportunities, some of which have actually materialized.

In Theory...

Theoretically, Regional Bell Operating Companies (RBOCs) no longer have a monopoly on telephone services, including plain old telephone service (POTS), and other capabilities. Likewise, traditional long-distance companies including AT&T, MCI, and Sprint have the opportunity to offer customers local as well as long-distance services. An important part of this mix is Internet and remote access network services.

The overall vision of the Telecommunications Reform Act, as further defined by the FCC's working rules, was to encourage competing companies to build their own local networks to compete with existing phone companies. To enable the new players to get started, the Act gives them the legal right to access the existing physical plant of copper wire, which until 1996, was monopolized by the phone companies.

Items scheduled to be "unbundled" from the RBOCs control per FCC orders include:

- access to the local loops
- access to local and tandem switching
- use of existing interoffice transmission facilities and signaling
- access to operator services and directory assistance
- access to network interface devices
- access to operations support systems such as provisioning and maintenance.

Another element to the order includes "procedures for nondiscriminatory access" by cable and long line companies to poles, ducts, conduits, and rights-of-way owned by LECs or utilities. Also included in the FCC orders is a provision whereby new entrants have the right to the best terms negotiated for resale of services.

In theory, local exchange carriers (LECs) can compete directly with RBOCs in their region, or they can provide service outside their region to compete with other RBOCs. Competitive access providers (CAPs), who have existing fiber links connecting businesses and long-distance companies, and Internet service providers (ISPs) also now have new business opportunities because of the access the Telco Act gives them to the existing telecommunications infrastructure.

Emerging Reality

A key service local exchange carriers, competitive local exchange carriers (CLECs), competitive access providers and Internet service providers can provide high-speed Internet access to businesses, telecommuters, schools, government, and small and home offices. These customers want affordable high-speed services and are able to pay for them. DSL technology, for instance, offers higher speed and more competitive pricing compared to the cost and performance of 56K leased lines, ISDN or T1 services. Using DSL technology, access providers can once again be at the crest of the wave of the exploding high-bandwidth demand.

In contrast, it is increasingly clear that hardly anyone is making money on slow, analog consumer services. In fact, PSINet sold its consumer business to Mindspring Enterprises, while national ISPs including Netcom and USA.net announced last year, that they will no longer offer service for new individual dialup memberships. These companies have looked at what it takes to build the infrastructure to support millions of "curiosity seekers" (Netcom) and late adopters, and said "No." Rather, they and other smart companies have decided to focus on building services for "productivity seekers"—those markets willing to pay for high-speed services because their business demands it.

A small or independent telephone company, or national long-distance company acting as a local exchange carrier, now can access the LLP to provide POTS—as well as long-distance, even

EXPANDED SHOWROOM

WEIRDSTUFF®

www.weirdstuff.com

Close Outs

We Buy and Sell Excess Inventories

Visit the one of a kind WEIRDSTUFF® sealed bid sale at our Sunnyvale location.

Sealed Bid Sale is every Monday, Tuesday & Saturday 9:30-6:00 Min. Bid $26

HARDWARE

SUNNYVALE ONLY

Laptops	$299 AND UP
U-Kleen-Um Tested Monitors	$53.99
SUN Sparc Stations	$150 AND UP
486-PC Systems	$75 AND UP
PC Keyboards	$5.00
PC Speakers	$9.99
VGA + SVGA Cards	$9.95 AND UP
Floppy Drives 1.44	$12.95
Floppy Drives 1.2	$10.00
Diamond Pro 16 Soundcard	$19.95
Soundcard w/wavetable	$14.95
Serial Mice (used)	$5.00
MS Serial Mouse (used)	$7.50
486MB(256k-ch/16mbRAM)	$45.95
486MB(256k-ch/24mbRAM)	$55.95
1x9-70 Memory	$3.00
4x9-70 Memory	$15.99
486 DX-50 CPU CHIP	$20.00
Mac Performa's	CALL
Mac Quadra's	CALL
Mac Keyboards	$24.95
Mac Mice	$15.00
Mac Duo Dock	$100.00
386 System w/4MB RAM, 40MB HD, VGA	$33.95
Sony Dual 1x CD-ROM (ext. w/con.)	$12.95
ASCI and ANSI Terminals	$25.00 AND UP
Sun Internal CD-ROMs	$35.00

SOFTWARE

SUNNYVALE/FREMONT

MS DOS 6.22	$45.99
Borland Visual dBase 7	$49.99
Red Hat 5.0	$9.99
MS Win95 B	$119.99
MS 3D Movie Maker	$4.99
MS Golf 3.0	$4.99
MS Cinemania	$4.99
MYST	$14.99
MS NT 4.0	$99.99
Netscape Communicator 4.03	$9.99
MS Windows 3.1	$39.99
Lotus SmartSuite 97	$29.99
60-80-200W Speakers II	$30.00
IBM PC-DOS 7	$29.99
Conflict Catcher 3	$5.99
Xoftware for Win	$9.99
Borland Turbo C++	$29.99
King's Quest VII	$12.99
Win Probe 3	$9.99
Magic Cap Win 95	$9.99
Print Master Gold Deluxe	$19.99
Norton's Utilities 3.0	$49.99
Jumpstarts	$9.99
EZ Language French, German, Russian, Japanese, Italian & French	$7.99 Each
DOS, PowerPoint, Borland Quicken & many more	

Prices and availability subject to change without notice.

New & Used Inventory Changes Daily!

- Monitors
- Terminals
- Hard Drives
- Floppy Drives
- Video cards
- I/O Cards
- CD ROMS
- Software
- Laptops
- Keyboards
- Printers
- Power Supplies
- Computer Cases
- Computer Cables
- Copiers
- WEIRDSTUFF®
- P.C. Systems
- Apple Systems
- Sun Sparc Stations
- Network Equipment
- Telephone Equipment
- Industrial Equipment
- Office Furniture
- Equipment Racks

SUNNYVALE STORE

The Original WEIRDSTUFF® Warehouse
384 W. Caribbean Dr., Sunnyvale, CA

(408) 743-5650
FAX: (408) 743-5655
www.weirdstuff.com

Sunnyvale Store Hours:
Mon-Sat 9:30-6:00

Special Purchase. While They Last!

Unbelievable Price:

$49.99

Package Contains 3-CD's! Complete with all of these amazing features

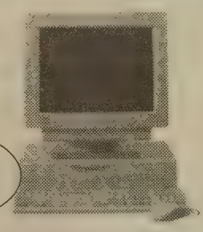
- Corel WordPerfect 7
- Corel Quattro Pro 7
- Paradox 7
- Corel Presentations 7
- CorelDraw 6 Illustration Module
- CorelFlow 3
- Sidekick 95
- Corel Time Line
- Corel A-Z
- Netscape Navigator
- Group Wise
- Envoy 7
- Dashboard 95
- Quick View Plus
- Corel Barista
- Info Central 7

IBM Voice Type Control:Voice Recognition Utility!

1,000 Fonts 10,000 Clipart Images

Discounts for Quantities

486 DX-33 Complete System



Sunnyvale Only

Includes:
14" Super VGA Monitor
Keyboard & Mouse

$159

Tens of 1000's of Titles

CD-ROM & Hard-to-Find Diskettes

$2 Discount Table 100's of Titles

FREMONT STORE

Software Store
46577 Mission Blvd.
Fremont, CA

(510) 354-6500
FAX: (510) 354-6551
www.weirdstuff.com

Sun.-Mon.	10:00 am – 7:00 pm
Tue. - Thu.	10:00 am – 8:00 pm
Fri.-Sat.	10:00 am – 9:00 pm

wireless—to the same customers as the resident RBOC. While it is presumably building its own network to compete with the RBOCs on every front, among other things, an LEC is able to use the existing telephone poles and offer (for a fee) the primary LEC's directory assistance services. Most importantly, an LEC has access to the copper lines already in the field. These copper lines, between the various Telco COs and customer/subscriber sites and between buildings, are accessible by competitors who can use these lines now to offer voice or dedicated high-speed data services.

A competitive local exchange carrier that is offering services within a limited area, perhaps a single metropolitan region, can also now access the RBOC's copper plant. In fact, a CLEC can now "co-locate" its equipment within a Telco's CO. From there, the CLEC, having access to the copper plant, can provide high-speed services to business customers.

The competitive access provider already has a fiber backbone around some metropolitan area that helps corporate customers link their LANs to the Internet or to remote LANs across the country. Using DSL technology, a CAP can further extend its network services to more companies that have been beyond the reach of its fiber ring.

Foot-Dragging And Other Developments

To be sure, all of the RBOCs know that there is a lot of money to be made in offering high-speed services to their customers, and some hope to keep this lucrative business—expected to approach $350 billion in the year 2000—to themselves. In fact some RBOCs are attempting to stall potential competitors from accessing the local loop plant.

Other RBOCs have taken a more enlightened approach. Perhaps having read the writing on the FCC's walls, they hope to learn how to be competitive while working with ISPs and other competitors in providing access to the local loop plant. The FCC, state public utility commissions, and industry forces, including established computer equipment vendors, long-distance companies, competitive access providers, and others will not likely let such an impediment stand for long.

In some regions, an Internet service provider is able to access an RBOC's copper plant without any difficulty so that it can provide high-speed data services to its customers. This can involve even co-location at a CO site. In other instances, where an RBOC chooses not to offer its unbundled loop plant all comers, an ISP could apply to become a CLEC to gain access to the loop plant, or gain access to the local plant through an established CLEC in that manner.

Unfortunately, there is very little new competition in the local telephone service market. A recent report by The Utility Reform Network (TURN) to the California Public Utilities Commission (CPUC) raised serious questions concerning Pacific Bell's claim that it no longer monopolizes local telephone service in California.

PacBell, which is owned by the Texas-based SBC Corp., had asked the CPUC to recommend that the Federal Communications Commission (FCC) approve its (PacBell's) application to enter California's lucrative long-distance market. Under the Telecommunications Act of 1996, the entry of "Baby Bells such as PacBell into long-distance markets is directly tied to elimination of their control over local markets."

continued on page 154

Tsoft Internet

Dial-up • Shell • Web Hosting • Co-Location • Dedicated

PPP Account . . . . . $19.95/mo.
- Unmetered Modem access up to K56Flex or v.90 (28.8/36.6Kbps too); for single person.
- 5MB space for your own Web Site

PPP/Shell Account . $25.95/mo.
- PPP w/ a BSD Shell Account
- 20MB space for homedir and Web included
- Optional custom domain name $7/mo.

T-1 1.5Mbps from $495/mo.
The Ultimate Internet Access for small to medium sized businesses and net junkies.

Dedicated Modem . . . . $85/mo.
- 24x7 PPP access, static IP
- Multiple IPs add $20/mo.

UnMetered 128K ISDN $39.95/mo.

Charter ISDN Account $39.95/mo. (limited qty)
- Unmetered - No hourly Internet Fees!
- 1B/2B (56-128 K) with modem backup
- Optional BSD Shell account $6/mo.

Standard ISDN Account . . . . . $19.95/mo.
- 1B/2B (56-128K) with modem backup; 40 B-hours included, $0.50/hr. additional
- Optional BSD Shell account $6/mo.

xDSL, Dedicated 24x7 ISDN Multilink Analog Modem (part-time and dedicated), Frame Relay and UUCP connections available. Server Co-location from $149/mo.

Access numbers local to the entire Bay Area! Including Santa Cruz, Boulder Creek, north to Vallejo, Fairfield, Santa Rosa

No Set-up Fee on Dial-up Services

Livingston Enterprises, Inc.

K56

Technology Provided by microelectronics group

Lucent Technologies

Give us a call at (510) 843-8763 or visit http://www.tsoft.com/services

WWW.WEBSEL.COM

Intel P2 Motherboards
Seattle SE440BX $196
Atlanta AL440LX $143
MU443EX Call

Intel TX430 Chipset
Motherboard - UDMA/33 $79

Adaptec 2940U $140
Adaptec 2940UW $155

NOTEBOOK SPECIALS

Hitachi
Visionbook Plus P233MMX, 32MB, 4.2GB, 13.3 TFT, 20xCD, 56K, W 95 $3675
Visionbook Pro P266MMX, 48MB, 4.0GB, 13.3 TFT, 20x, 56K USR, W 95 $4395

Fujitsu
Lifebook 985TX P233MMX, 32MB, 5.0GB, 13.3 TFT, 20xCD, 56K , W 95 $4360

Toshiba
Satellite Pro 480CDT P233MMX, 32MB, 3.8GB, 12.1 TFT, 10xCD, W 95 $3480
Satellite Pro 750CDT P233MMX, 32MB, 4.7GB, 13.3 TFT, 20xCD, 33.6K, W 95 $5190

New Pentium II
400MMX™
w/ 17" Monitor, 8MB AGP Graphics
64MB SDRAM, 32x CD ROM
6.4GB UDMA/33 HD, Multimedia Kit
$2150
350MHz - $1950

333MHz $1650
300MHz $1550
266MHz $1450
233MHz $1350

- Intel Pentium® II Processor w/ 3 Year Warranty
- 64MB SDRAM RAM, 60ns
- 6.4GB UltraDMA/33 Hard Drive • 1.44MB Floppy
- 17" .28dp 1280x1024 Monitor • 8MB AGP Graphics
- 32x CD ROM Drive • 3D Stereo OPL3 Sound Card
- 60Watt Multimedia Speakers • PS/2 Mouse
- 104-Key Keyboard • Multimedia Microphone
- Deluxe Dual Fan ATX Case • MS Windows 95 CD OSR 2.5
- All items brand new w/ Manufacturer's Warranty
- Three Year Warranty on Monitor
- One Year System Warranty

Iomega ZIP Drive $84

3COM 3C905TX 10/100
$58

56K PCI Fax Modem $80

SOFTWARE

Windows NT 4.0 w/Internet Exp. $185
NT 4.0 Server w/5user Lic. OEM $695
NT Server 4.0 w/10user Lic. $990

NOVELL
Internet for Small Business
1 Add./ 5 Add. License ..... $59 / $220
Small Office Pack $395
IntranetWare Full Versions
5 User / 10 User ..... $690 / $1290
25 User / 50 User ..... $2090 / $2890
NetWare Upgrades: Any
5 to 5 / 5 to 10 ..... $325 / $1175
10 to 10 / 10 to 25 ..... $595/ $1365
10 to 50 / 25 to 25 ..... $2170 / $955
25 to 50 / 25 to 100 ..... $1725 / $2955
50 to 50 / 50 to 100 ..... $1260 / $2480
Groupwise 5.2
5 User / 10 User ..... $435 / $875
25 user / 50 User ..... $2170 / $4155
100 User $8080

WWW.WEBSEL.COM

510-623-9125
408-263-9127
Fax: 510-623-9145

www.WEBSEL.com
newriver
43102 Christy St. Fremont, CA 94538
61A Airport Blvd., So. San Francisco, CA 94080

650-952-5887
650-952-5886
Email: sales@websel.com

Price & availability subject to change. Not responsible for typographical errors. Pentium® & MMX™ are registered trademarks of Intel Corp. All other trademarks & logos are the property of their respective owners.

Affordable Web Site Design, Hosting & E-Commerce

www.ixamerica.com www.usvar.com

Since 1985 the Best Service in the Bay!

We Carry Intel, Anchorage, Atlanta, Seattle & Dakota Redwood-Dual PII CPU M/B

SPECIAL BUNDLES

- ASUS-SP97-V Main Board w/200/233MMX $209/249
- HOT 555A Main Board w/Intel 166MMX $185
- HOT 569 Main Board w/200/233MMX CPU $199/239
- HOT 637 PII Main Board w/233/266 PII CPU $339/385
- 16 Bit 3D Sound Card + 24X CD-ROM w/80W Speakers $99

ECI ULTRA DVD PARTNER

- **ASUS TXP4-X ATX M/B w/512K**
- **Intel Pentium Processor w/MMX**
- 64MB RAM Exp. To 256MB (SIMM)
- 1.44MB Floppy Drive
- 6.4GB UIDE H.D.
- **Toshiba DVDX2 Encore DXR2**
- **Sound Blaster AWE 64 Value (OEM)**
- **ATI ALL IN WONDER PRO w/4MB PCI**
- **Diamond Supra V.90 Fax/Modem**
- "ATX" Mid-Tower Case w/235W P.S.
- 160W Amplified Stereo Speakers
- ECI 104-Key PS/2 Keyboard
- Microsoft Intelli PS/2 Mouse w/Pad
- Windows 95 CD (OEM) Monitor Not Included

233MHz (Intel) $1,239
AMDK6-233 .....$1,189

ECI DELUXE CAD PARTNER

- **Intel Celeron® Processor**
- **Pentium II 440 LX Chipset Hot-637 M/B**
- **64MB SDRAM DIMM Exp. To 384MB**
- 1.44MB Floppy Drive
- **8.4GB UIDE H.D.**
- **32X EIDE CD-ROM Drive**
- **Sound Blaster AWE 64 Value (OEM)**
- **Matrox Productiva G100 8MB AGP**
- "ATX" Mid-Tower Case w/235W PS
- **Yamaha M-7 Amplified Stereo Speakers**
- ECI 104-Key Keyboard
- Logitech PS/2 Mouse w/Pad
- Windows 95 CD (OEM) Monitor Not Included

Pentium II 266MHz..$1,059

ECI HOME/OFFICE PERFORMER PARTNER

- **Intel Pentium II Processor w/512K**
- **Integrated L2 Cache 100MHz BUS**
- **Intel SE440BXPA Seattle w/PCI Audio**
- **64MB SDRAM 100MHz DIMM Exp.To 384MB**
- 1.44MB Floppy Drive
- 4.3GB UIDE H.D.
- 32X EIDE CD-ROM Drive
- **3D PCI Sound on Board**
- **Intel Express 3-D Graphics w/4MB AGP**
- **Diamond Supra V.90 Fax/Modem**
- "ATX" Mid-Tower Case w/235W PS
- Yamaha M-7 Amplified Stereo Speakers
- 104-Key Keytronics PS-2 Mouse w/Pad
- Microsoft PS/2 Mouse w/Pad
- Windows 95 CD (OEM) Monitor Not Included

Pentium II 350MHz..$1,559

ECI WORKSTATION PARTNER

- **ASUS-SP97-V M/B/512K Cache**
- **Intel Pentium® MMX or AMD K6 CPU**
- 16MB Memory Exp. to 128MB
- 1.44MB Floppy Drive
- 2.1GB Hard Drive
- 24x IDE CD-ROM Drive
- Built-In 64 PCI Graphic Engine
- Mini-Tower Case w/230W P.S.
- 104 Key Win95 Keyboard
- PS/2 Mitsumi Mouse w/Pad
- Windows 95 (OEM, CD Ver.) Monitor Not Included

Intel® P5 MMX
200/233.....$529/569
AMD K6-233 .....$499

ECI HOME PARTNER MULTIMEDIA

- **Shuttle Hot 579 M/B w/512K Cache**
- **Intel Pentium® Processor w/ MMX Technology**
- 32MB RAM, Exp. to 128MB
- 1.44MB Floppy Disk Drive
- **2.5GB UIDE Hard Disk Drive**
- 24X EIDE CD-ROM Drive
- 16-Bit 3D Sound Card
- S3 64 SVGA Card w/2MB DRAM
- 56K Internal Fax/Modem w/Voice
- Mini-Tower Case w/230W PS
- Stereo Speakers (80W) #69IN
- Enhanced 104-Key Keyboard
- Mitsumi Serial Mouse w/Pad
- Windows 95 (OEM CD-ROM Ver.) Monitor Not Included

200MHz MMX $639
233MHz MMX.....$669

ECI ULTIMATE PARTNER

- **Intel Pentium® II Processor w/512K Integrated L2 Cache**
- Intel AL 440LX **"Atlanta"** "ATX" Board
- 32MB SDRAM DIMM Exp to 384MB
- 1.44MB Floppy Disk Drive
- **6.4GB** Hard Disk Drive
- 32X EIDE CD-ROM Drive
- **Sound Blaster AWE 64 Value (OEM)**
- 2 - PCI EIDE Controller & FDC on Board
- 2 - USB, 2 - 16550 Serial & EPP on Board
- **Diamond Viper AGP w/4MB SGRAM**
- 56K Internal Data/Fax Modem (USR OEM)
- "ATX" Mid Tower Case w/235 W.P.S.
- Yamaha M15 Amplified Stereo Speakers
- Enhanced 104-Key PS/2 Keyboard
- Microsoft PS/2 Mouse
- Windows 95 (OEM, CD-ROM Version) Monitor Not Included

Pentium® II 266MHz .$1199
Pentium® II 300MHz .$1339
Pentium® II 333MHz .$1469

ECI SERVER PARTNER

- **Intel Pentium® II Processor w/512K Integrated L2 Cache**
- **Intel Seattle SE440BXIA 100MHz**
- 64MB 100MHz DIMM Exp. To 384MB
- 1.44MB Floppy Drive
- **4.3GB Ultra SCSI Hard Drive**
- 24X EIDE CD-ROM Drive
- **Ultra SCSI PCI Controller**
- **HP 4.0GB SCSI DAT Tape Backup**
- **Matrox Productiva 4MB AGP**
- "ATX" Mid Tower Case w/300W PS
- Enhanced 104-Key PS/2 Keyboard
- LogiTech PS/2 Mouse
- Windows 95 (OEM CD-ROM Version)
- APC Smart-UPS 700NET **ADD $389**
- **NT Server 4.0 for 5 Licenses ADD $395** Monitor Not Included

Pentium® II 350MHz.....$2079
Pentium® II 400MHz.....$2319

ECI INTERNET PARTNER

- **Intel Anchorage AN430TX ATX M/B**
- **Intel Pentium® Processor w/MMX Technology**
- 512K Pipeline Burst L2 Cache
- 32MB 10ns DIMM Exp. to 256MB
- 1.44 MB Floppy Drive
- **5.2GB IDE Hard Drive**
- **32X EIDE CD-ROM Drive**
- **Yamaha OLP4 SA on Board**
- 56K Internal Fax/Modem w/Voice
- **Diamond Stealth 64 3D w/4MB VGA Card**
- ATX Tower Case w/235W Power Supply
- Amplified Stereo Speakers 160W
- ECI 104 Keyboard w/PS/2 Style
- Microsoft OEM PS/2 Mouse w/Pad
- Windows 95, CD-ROM Ver. Monitor Not Included

200MHz MMX $839
233MHz MMX $879

ECI OFFICE PARTNER

- **Intel Anchorage AN430TX 512 Cache M/B**
- **Intel Pentium® Processor w/MMX Technology**
- 32MB RAM, Exp. to 256MB(60ns)
- 1.44 MB Floppy Drive
- **4.3GB UIDE Hard Drive**
- **32X CD-ROM Drive**
- **Yamaha OLP4SA on Board**
- 56K Internal Fax/Modem w/Voice
- ATI PC1 w/2MB SVGA on Board
- ATX Tower Case w/235W PS
- Amplified Stereo Speakers 160W
- ECI 104-Keyboard PS/2 Style
- Logitech OEM PS/2 Mouse w/ Pad
- Windows 95 (OEM, CD-ROM Ver.)
- **MS Word 97 • MS Works 4.0**
- **MS Arcade • MS Internet**
- **MS Internet • MS Home Essentials 97** Monitor Not Included

200MMX $899
233MMX $939

FAX MODEMS

US Robotics

33.6/Sportster V.34 Int/Ext #840/839 .....$89/109
56K Courier w/ v.90 Ext #2806 .....$259
V.90 ITU Standard Int/Ext #5687/5686 .....$139/159
56K.90 Voice Int/Ext #5685/5605 .....$169/235

DIAMOND (SUPRA EXPRESS)

56K ITU Standard Int/Ext.....$109/125
56K ITU Standard w/Speakerphone.....$119

Pragmatic

56K Fax Modem Int. w/ Voice $69
33.6 Fax Modem Int. w/ Voice.....$45

ETHERNET CARDS

3Com

3COM 3C509 B-TPO/Combo ISA.....$49/65
3COM 3C900 PCI TP/Combo.....$59/79
3COM 3C905TX B 10/100 TP/5 Pack.....$69/329
3COM 8-Port 10 Base-T Hub 3C16180.....$109
3COM PS40 12 Port Hub 3C16405 .....$439
3COM PS40 24 Port Hub 3C16406 .....$749

intel.

PILA 8460B 100TX/5 Pack.....$51/239
12 Port 100TX Hub EE110Tx12.....$1199
24 Port 100TX Hub EE110Tx124.....$1949

MOTHERBOARDS Call for Products Not Listed (CPU Not Included)

intel.

Dakota Dual Pentium® II DX 400LX.....$469
Atlanta Pentium® II "ATX" AL440LX.....$159
Atlanta Pentium® II "ATX" AL440LX w/Audio....$179
Anchorage w/512K/Audio/ATI 2MB 430TX....$209
Anchorage w/512K & Audio 430TX "ATX"....$175
Seattle Pentium® II ATX SE440BXIA $189
Seattle Pentium® II ATX SE440BXPA.....$199

ASUS

SP97-V P75-233 w/512K $79
TX97XE P75-233 430TX (ATX).....$135
TX9P4-ATX w/512K $119
P2L97 Pentium® II ATX 440LX..$139
P2L97 PII AGP UW SCSI.....$239
P2L97 DS DUAL PII W/2940UW $369
P2B 440BX PII 233-400MHz $169
P2B 440BX-S PII w/UWSCSI.....$279

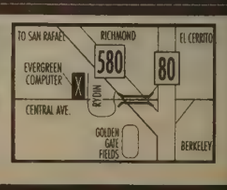
Shuttle (Spacewalker)

HOT-579 512K Via P75-233MMX AT.....$79
HOT-637 Pentium® II 440LX (ATX).....$119
HOT-635 Pentium® II 440LX w/SCSI (ATX)....$259
HOT-555A 512K P75-233MMX 430VX.....$79
HOT-591P 512K 100MHz BUS w/AGP.....$95

EVERGREEN

Computer International, Inc.
2700 Rydin Road #C, Richmond, CA 94804
(510) 526-8667 FAX (510) 526-1447
E-mail eci@pacbell.net

VISA MasterCard DISCOVER POs



HEWLETT PACKARD · Microsoft · brother · IBM · intel

NOTEBOOKS

Acer · FUJITSU · IBM · HITACHI MOBILIZED COMPUTING

TOSHIBA NOTEBOOK

MODEL#	CPU	HD	RAM	CD	MDM	SCREEN	PRICE
750 DVD	233MMX	5.1	64	DVD	56k	13.3TFT	$CALL
750 CDM	233MMX	5.1	32	20X	56k	13.3TFT	$CALL
730 CDX	150MMX	2.1	16	10X	28.8	12.1TFT	$CALL
530CDT	166MMX	2.1	32	10X	33.6	12.1TFT	$CALL
520 CDT	166MMX	2.1	32	10X	33.6	12.1TFT	$CALL
480 CDT	233MMX	3.8	32	10X	33.6	12.1TFT	$CALL
470 CDT	200MMX	2.1	32	10X	33.6	12.1TFT	$CALL

Acer EXTENSA

MODEL#	CPU	HD	RAM	CD	MDM	SCREEN	PRICE
391T	150MMX	2.1	16	20X	NO	12.1TFT	$CALL
392T	166MMX	3.2	32	20X	NO	12.1TFT	$CALL
393T	166MMX	2.1	32	20X	NO	12.1TFT	$CALL
394T	200MMX	3.2	32	20X	NO	12.1TFT	$CALL
395T	233MMX	3.2	32	20X	NO	12.1TFT	$CALL

IBM® THINK PAD

MODEL#	CPU	HD	RAM	CD	MDM	SCREEN	PRICE
380XD 2635EAU	PII 233	4.0	32	24X	NO	12.1HPA	$2649
380XD 2635FUA	PII 266	5.1	32	24X	NO	12.1TFT	$CALL
600 264521U	233MMX	3.2	32	24X	NO	13HPH	$2849
600 264541U	PII 233	3.2	32	24X	NO	13.3TFT	$CALL
600 264551U	PII 266	4.0	32	24X	NO	13.1TFT	$CALL
770E 954851U	PII 266	5.1	32	OPT	NO	14.1TFT	$CALL
770ED 95495AU	PII 266	8.1	64	DVD	NO	14.1TFT	$5595

FUJITSU LIFE BOOK

MODEL#	CPU	HD	RAM	CD	MDM	SCREEN	PRICE
985 TX	233MMX	5.0	32	20X	56K	13.3TFT	$CALL
675 TX	200MMX	3.2	32	OPT	56K	12.1TFT	$CALL
635 TX	133MMX	2.0	16	OPT	33.6	12.1TFT	$CALL

HITACHI VISION BOOK

MODEL#	CPU	HD	RAM	CD	MDM	SCREEN	PRICE
5270	200MMX	2.1	32	20X	56K	12.1DSTN	$1689
5280	233MMX	3.2	32*	20X	56K	12.1DSTN	$1969
5390	266MMX	3.2	32	20X	56K	12.1DSTN	$2269
1120	233MMX	4.3	32	20X	56K	13.3TFT	$2549
3745	133MMX	1.0	24	N/A	N/A	8.4TFT	$1719
7590	266MMX	4.0	48	20X	56K	13.3TFT	$3649

*PLEASE CALL FOR ANY MODEL NOTEBOOK INFORMATION

UPGRADES NOTEBOOKS by Addonics Technologies

20X MAX PCMCIA Pocket CD	$269
20X MAX Parallel Port Pocket CD	$199
24X Ext. Parallel Port for Notebook & Desktop PCs	$235
Pocket 2.5" Parallel Port Hard Disk 1.0GB	$239

PC HARD DRIVES

Quantum™

3.2GB UIDE 33240ST-A	$155
4.3GB UIDE 34320ST-A	189
6.4GB UIDE 36480ST-A	229
2.2GB UWS XP32275W	205
3.2GB SCSI ST3240S	245
4.5GB SCSI QM 34550SW	449

FUJITSU

3.2GB UIDE 3026AT	$149
4.3GB UIDE 3043AT	169
5.2GB UIDE 3052AT	199
6.4GB UIDE 3064AT	215

Maxtor®

8.4GB UIDE 88400D	$279
11GB UIDE 91152D	375

WESTERN DIGITAL

2.1GB EIDE 22100	$139
2.5GB UIDE 22500	149
3.2GB UIDE 33200	159
4.3GB UIDE AC34300	175
5.1GB UIDE 35100	199
6.4GB UIDE 36400	219

Seagate

2.5GB EIDE ST52520A	$135
4.3GB EIDE ST34342	179
4.5GB SCSI ST34573NW	499
9.1GB WSCSI ST19101W	939
9.1GB SCSI ST19173N	779
9.1GB WSCSI ST19173SW	799

CD-ROM DRIVES

TOSHIBA
- 24X IDE XM-6102B ... $75
- 32X IDE XM-6201B ... 85
- DVD 2X SDM-1102 ... 149

YAMAHA (Rewritable)
- 4x6x2 IDE CRW 4001 w/SW ... $465
- 4x6x2 SCSI CRW 4260 w/SW ... 489

SONY (Recordables)
- 2x8 IDE CD-R CDU928 E/H w/SW ... $CALL
- 4x8 SCSI CD-R CSP-948 w/SW ... $389

EXTERNAL SCSI DRIVE CASES

- High Quality Metal Cases
- Noise-Free Fan
- External SCSI ID Switch

3.5" or 5.25" SCSI-I	$49/55
Two (2) 5.25" SCSI-I/II/III	85/115/129
Four (4) 5.25" SCSI-I/II/III	105/139/159
Eight (8) 5.25" SCSI-I/II/III	215/259/289

APC
AMERICAN POWER CONVERSION

BACKUP POWER SUPPLIES AT

APC 280VA Back-UPS	$95
APC 450VA Back-UPS	169
APC 600VA Back-UPS	229
APC 1000 Backup-UPS Pro	379
APC 1000 Smart-UPS	469
APC 1400 Smart-UPS	599

MONITORS

OPTIQUEST (BY VIEWSONIC)

15"	Q51	1024x768	.28	$195
17"	Q71	1280x1024	.28	325
19"	V95	1600x1280	.26	599

PROTON

15"	GM1571	1280x1024	.28, AT 60Hz	$195
17"	GM770R	1280x1024	.28	319

HITACHI

15"	CM500U	1280x1024	.28	$239
17"	CM620U	1280x1024	.28	455
17"	CM630	1600x1200	.22	609
19"	751	1600x1200	.22	785
21"	CM800U	1600x1200	.22	999
21"	CM803U	1800x1440	.22	1479

VIEWSONIC

14"	E641	1024x768	.28	$169
15"	P655	1280x1024	.28	265
17"	GS771	1280x1024	.27	405
17"	G771	1280x1024	.27	409
17"	G773	1280x1024	.26	449
17"	E771	1280x1024	.27	355
19"	G790	1600x1280	.26	709
21"	G810	1600x1280	.25	959
21"	P810	1600x1280	.25	1089
21"	P815	1800x1440	.25	1219

SONY

15"	100ES	1280x1024	.25	$299
15"	100GS	1280x1024	.25	349
17"	200ES	1280x1024	.25	549
17"	200GS	1280x1024	.25	629
19"	400PS	1600X1200	.25	939

NEC

15"	M500	1280x1024	.25	$365
15"	A500	1280x1024	.28	279
17"	E700	1280x1024	.25	575
17"	A700	1280x1024	.28	485
21"	P1150	1600x1200	.28	1179

TAPE BACKUPS

IOMEGA TAPE DRIVES

7.0GB Ditto Max Int/Ext	$199/209

HEWLETT PACKARD

4.0GB SCSI 4mm DAT C1536 Int	$429
8.0GB SCSI 4mm DAT C1528H Int	819
24GB SCSI 4mm DAT C1555B Int	1149
3.2GB T-3000 Internal w/Tape	179
5.0GB C4354A IDE w/Tape Int	209

SYQUEST TAPE DRIVE

230MB EZ Flyer IDE Int	$149
230MB EZ Flyer Parallel Ext.	149
230MB EZ Cartridge 1 pcs/10 Pak	19/185
SPARQ 1GB IDE INT	185
SPARQ 1GB Parallel Port Ext	195
1.5GB SYJET SCSI Int/Ext	275/299
1.5GB SYJET Parallel Ext	285
1.5GB SYJET IDE Int	275
1.5GB SYJET Cartridge 1 pcs/3 Pak	59/169

iomega ZIP/JAZ DRIVE

100MB Zip Drive IDE Internal (OEM)	$89
100MB Zip Cartridge 3 Pak/10 Pak	35/109
1GB JAZ Drive Int./Ext. SCSI	275/289
2.0GB JAZ Drive Int./Ext.	499/599
1GB JAZ Cartridge 3 Pak/5 Pak	235/385

PRINTERS

HEWLETT PACKARD

LASERJET PRINTERS

6LXi, 1MB, 6ppm, 600dpi	$389
6PXi, 2MB, 8ppm, 600dpi	739
6MP, 3MB, 8ppm, 600dpi	879
4000 4MB, 17ppm, 1200dpi w/2 Trays	1095
4000T 4MB, 17ppm, 1200dpi w/3 Trays	1249
4000N 8MB, 17ppm, 1200dpi w/2 Trays	1399
4000TN 8MB, 17ppm, 1200dpi w/3 Trays	1559
5000 4MB, 16ppm, 1200dpi	1519
5000 N/5000 GN 8MB/12MB (LAN)	2095/2669
8000/8000N 16MB, 24ppm, 1200dpi	CALL
8000DN 24ppm, 24MB, 1200dpi	CALL
Color LaserJet 5, 20MB 7B, 3 Color	3779
Color LaserJet 5M, 36MB, 7B, 3 Color	4869

DESKJET PRINTERS

670C 600x600	$205
692C 600x600	255
720C 600x600	325
890CXI 600x600, 9ppm	395
1600C 600x600	1265
1120xi 600x600 Up to 11x17 PAPER (NEW)	469
2000Cxi/2000CN 10ppm, 600dpi NEW	CALL

EPSON

LQ-2070 Plus 24 Pin 135 Columns	$399
LQ-570 Plus 24 Pin 80 Column	269
STYLUS Photo	339
STYLUS Color 600 1440x720 6 Black 4 Color	235
STYLUS Color 800 1440x720 8 Black 7 Color	299
STYLUS 1520 Support 17"x22" 1440DPI	729

SCANNERS

ScanJet 5S 600DPI 24 Bit Color	$195
ScanJet 5100CXi 600DPI 36 Bit Color	289
ScanJet 6100C 2400DPI 45 Bit	739
UMAX	
ASTRA 610P 600DPI 30 Bit Parallel	135
ASTRA 610S 600DPI 30 Bit SCSI	149
ASTRA 1200S DLS 1200DPI 30 Bit SCSI	249

OFFICE JET PRODUCTS

All-In-One: Color Printer Copier Scanner Fax Machines

HEWLETT PACKARD

OfficeJet 590 600x300dpi	$399
OfficeJet 630 up to 1200dpi	519
OfficeJet 1170C up to 1200dpi	795

brother

MFC 7000FC	$785
MFC 4450 PLUS	619

Canon

C5000	$489
C6000	575

VGA CARDS

ATI (OEM VGA Card)

X-pert@Work 4MB/8MB PCI SGRAM	$99/109
X-pert@Play 4MB/8MB PCI SGRAM	99/129
All-in-Wonder PRO 4/8MB PCI/AGP	229/269

DIAMOND (OEM VGA Card)

Stealth IIS 220 4MB PCI	99
Viper V330 4MB PCI/AGP	115/115
Fire GL 1000 Pro PCI 4MB/8MB	129/159

OTHERS

S3 PCI w/2MB	$39

MATROX

Millennium II 1600x1280 (OEM) 4MB/8MB WRAM (up to 16MB)	$CALL/CALL
Upgrade module for Millennium 4/8/12MB	$95/169/229
Matrox Mystique 220 2/4MB SGRAM	$73/85

HOURS: M-F 9-5:30 Sat 10-4
3 Years Labor, 1 Year Parts Warranty on Evergreen Computers.
Prices subject to change w/o notice.
Not responsible for typos.
Pentium® is a registered trademark of Intel Corp.
PRICES BASED ON CASH PRICES ONLY

Ask For Any Notebook & Laser Printer Memory Upgrades Please Call Us Thanks

(510) 526-8667

FAX (510) 526-1447 e-mail: eci@pacbell.net

EVERGREEN

CompuMall
Your Premier Computer Source
www.computerstogo.com
Your Prime -Time
Discount Source of
Name Brand Laptops...
SALE Fast Access SALE
to the Best Deals
www.ibmdeals.com www.toshibadeals.com
www.compaqdeals.com www.hpdeals.com
www.appledeals.com www.softwaredeal.com
Armada 7790DMT
P233MMX, 13.3" TFT
32/3GB/CD $3295
Armada 7770DMT
P233MMX, 12.1" TFT
32/3GB/CD $2695
COMPAQ
Armada 4100 Series
Mobile Expansion
8XCD-ROM $125
Armada 7750MT P166MMX 16-2.1, 12.1" TFT ____ $2095
Armada 7330T P150MMX 16-2.1GB, CD, 12.1" TFT __ $1545
Armada 4131T P133 16-1.4, 8xCD, 12.1" TFT ____ $1125
Armada 4150 P150MMX 16-1.6, 12.1" DSTN ____ $1025
Armada 1590DMT P166MMX 16-2.1, 20xCD, 12.1"TFT $2195
Presario 1622 P233MMX 32-3, 20xCD, 12.1" DSTN __ $1895
LTE Elite 5280 P120, 16/1.3GB, 11.3" TFT ____ $1075
DeskPro 6000 Desktop PII/266MMX , 96MB-4.3GB, 24xCD ____ $1795
DeskPro 6000 Minitower PII/333MMX , 128MB-4.3GB, 24xCD ____ $2395
DeskPro 4000 Desktop PII/266MMX , 96MB-3.2GB, 24xCD ____ $1596
Compaq Desktops Presario PCs 2200/4900/4600/4800 Series ____ CALL
ThinkPad 380D
P150MMX
12.1" TFT
16/1.1GB/CD $1299
IBM ThinkPads
TP 380XD P266MMX 32-5GB, 24xCD, 12.1" TFT __ $2995
TP 380ED P166MMX 16-3GB, 20xCD, 12.1" TFT __ $1795
TP 380ED P166MMX 16-2.1GB, 20xCD, 12.1" DSTN $1445
TP 380D P150 16-1.3GB, CD, 12.1" DSTN ____ $1099
TP 770 P233MMX 32-5GB, 14.1" TFT ____ $3795
TP 770 P233MMX 32-4GB, 13.3" TFT ____ $2895
TP all models in stock. Best Price! ____ CALL
TP 600 (264521U) P233MMX , 32-3.2GB, 13.3" TFT, Microsoft Windows 95 __ $2895
TP 600 (264551U) P266MMX , 32-4GB, 12.1" TFT, Microsoft Windows 95 ___ $3995
XEROX
DocuPrint Printers
1 YEAR ON SITE /EXPRESS EXCHANGE WARRANTY
THE DOCUMENT COMPANY
XEROX
4508 8ppm, 600dpi, 2MB RAM ____ $535
4512/4512N 12ppm, 600dpi, 4MB RAM ___ $865/1115
4517/4517MPS 17ppm, 1200dpi ____ $945/1110
N32 32ppm, 600dpi, 12MB RAM, prints 11x17" ___ $2195
C55 Color Laser 12ppm, 600dpi, 30MB RAM ____ $2875
Extensa™ 660CDT
P133, 10xCD,
11.3" Active Color
16/1.1GB
$945
TEXAS INSTRUMENTS
Extensa 900T P133 16-1.3GB, 11.3" TFT, 4.8Lbs. ____ $895
Extensa 393C P166 MMX 16-2GB, 20xCD, 12.1" DSTN _ $1249
Extensa 393T P166MMX 32-2.1GB, CD, 12.1" TFT ____ $1699
Extensa 394T P200MMX 32-3.2GB, CD, 12.1" TFT ____ $2199
LaserWriter 16/600PS* MAC & PC
4MB/6MB, AMD, 17ppm, Ethernet $1095
Apple
PB. G3/292 750/292MHz
64/8GB/CD $4995
PB. 2400C 603e/180MHz
16/1.3GB $1595
PowerBook G3/300 128-2x4GB-24xCD __ $3945
PowerBook G3/250 32-4GB, 20xCD, 56k $3799
PowerBook G3/233 32-2GB, 20xCD, ____ $2165
PowerBook 3400c/240 16-3GB, CD, 33.6 _ $1995
PowerBook 1400cs/166 16-1.3GB, CD ____ $1435
PoweMac Desktops _ In Stock. Best Deals!
1-800-977-5665
Tel:(818)-787-3282 Fax:(818)787-2111
6731 Van Nuys Blvd., Van Nuys, CA 91405
e-mail:cmsales@compumall.com
Prices reflect Cash Discount Orders & subject to Prior Sales & Change W/O Notice! * Factory reconditioned w/warranty Micro#180-A

continued from page 150

PacBell filed more than 6,000 pages of documents attempting to prove they no longer monopolize California's local telephone service. But Thomas Long, TURN's senior telecommunications attorney, said, "After an exhaustive examination of the data, the only possible conclusion is that PacBell's claims of extensive competition are ridiculous." According to Long, less than 1% of PacBell's overall customer base is served by competitors using their own facilities, and only a minute fraction of those are residential customers. Resale of local service remains stagnant at 1.5% since the three biggest resellers, AT&T, MCI, and Sprint, have stopped marketing local service. In the past year, the number of new lines added by PacBell alone was more than double the total number of lines served by all other providers.

This analysis contrasts sharply with PacBell's April ads heard on the radio that featured a narrator explaining that PacBell had opened every door for competition replete with sound affects of a door opening. Sadly, the narrator explained, PacBell's competitors only shut the door to competition (accompanied by the sound of a door slamming shut). This from the same company that announced it wanted to telemarket phone services to its customers with unlisted numbers.

Some national ISPs have looked at what it takes to support millions of "curiosity seekers" and late adopters, and said, "No." They and other smart companies have decided to focus on building services for "productivity seekers" —those markets willing to pay for high-speed services because their business demands it.

Meanwhile, before the Tennessee Regulatory Authority, Bell South, with much the same local exchange monopoly as PacBell, defended its appeal to enter the long-distance market by claiming it would give long-distance companies and other competitors "greater incentive to get into local services."

At the same time, in a turnabout from last year's reduction in long-distance rates, AT&T announced it will in fact start charging 45 million customers up to $0.95 to recover the $1.2 billion it pays to Baby Bells for completing long-distance calls whether or not they make a long-distance call during the monthly billing cycle. MCI has been arguing the same point in Virginia where it bills customers based on total charges for primary interexchange and universal service charges rather than only for interstate charges.

Two years later, this is how Telecommunications Reform is played.

TURN's report confirms that efforts to open up local phone markets have created negligible new competition in the marketplace. According to Long, most of PacBell's would-be competitors have pulled out of the local market, citing difficulty in accessing switches, loops and other services and equipment necessary to providing competitively priced local phone service. The 1996 Act requires that the Baby Bells provide genuine access to their exclusively controlled equipment and services before they can be granted permission to enter the long-distance market.

TURN's Long says, "Six thousand, six million or six billion documents won't change the fact that the supposedly open market has yet to provide consumers with any real choice. The Telecommunications Act requires actual, meaningful competition, which has yet to arrive in California." ◆

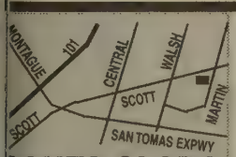
Copyright © 1998 by Bill Gram-Reefer. All rights reserved.

MEMORY BLOWOUT SALE!!

Everything must be sold!!

1MB 30pin SIMMS (All types)	$2
2MB 30pin SIMMS (MAC)	$2
2MB 72pin SIMMS (All types)	$2
4MB 72pin SIMMS (EDO/FPM)	$5
4MB 72pin SIMMS (Parity)	$7
8MB 72pin SIMMS (EDO/FPM)	$7
8MB 72pin SIMMS (Parity)	$15
8MB 168pin DIMMS (MAC)	$15
32MB 168pin DIMMS (EDO/ECC)	$39

****Make sure to mention this ad when calling****



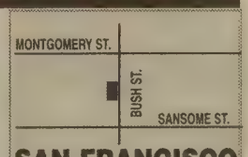
SANTA CLARA
408-565-9034
FAX 408-654-9463
2450 Scott Blvd, Ste. 306
Santa Clara CA 95050
Hours: M-F 9-6 Sat 11-4

SWEET MEMORY

www.sweetmemory.com

MasterCard VISA

Prices good for a limited time only. Limited to stock on hand. One year standard warranty on all memory.



SAN FRANCISCO
415-288-9470
FAX 415-288-9469
225 Bush St., Ste. 160
San Francisco, CA 94104
Hours: M-F 9-6 Sat 11-3

Alexa, I'm Glad I Met Ya...

A Web Browser Add-On That Makes Surfing Sweeter

By Kevin Savetz

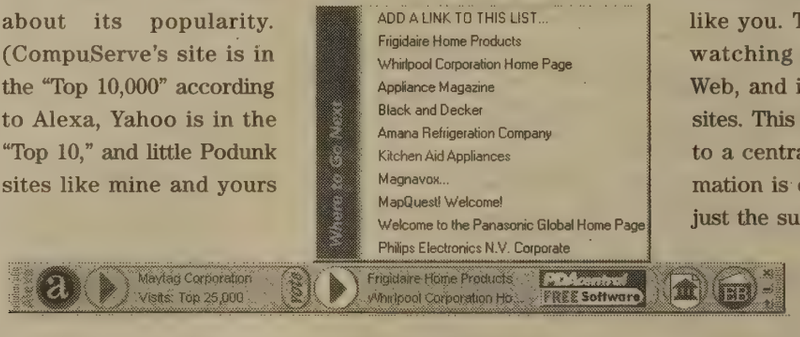
When you visit a site, Alexa goes to work, displaying relevant information in its toolbar. The toolbar provides two primary kinds of information—about the site, and about other sites on the same topic.

I'm not a big fan of software add-ons. Most browser add-ons, plug-ins and other doodads manage to underwhelm me with their utility while nibbling away at the stability of my computer system. In my book, a lot of those gadgets just aren't worth the trouble.

I've made an exception, though, for a program called Alexa—an add-on that makes surfing the Web faster, easier, and more informative.

After you download and install Alexa, you'll find a toolbar alongside your Web browser's window. When you visit a site, Alexa goes to work, displaying relevant information in its toolbar. The toolbar provides two primary kinds of information—about the site, and about other sites on the same topic.

When you visit a Web site, Alexa will tell you who owns the site and about its popularity. (CompuServe's site is in the "Top 10,000" according to Alexa, Yahoo is in the "Top 10," and little Podunk sites like mine and yours are humanely labelled "Moderate traffic.") Clicking on the arrow icon next to these stats reveals more information, including the number of links to the site from elsewhere, the number of pages that comprise the site, its speed and how often it is updated.



Just to the left on the toolbar is the feature that makes Alexa truly useful: The related links index. Here, a pop-up menu reveals a list of other sites on topics similar to the current one. For example, while visiting the clip art warehouse ArtToday (*www.arttoday.com*), the program recommended a desktop publishing site, a font archive and other clip art sites. Alexa creates this list with a combination of recommendations (the "add a link to this list" command allows you to suggest a site) and by watching the surfing patterns of its users. As a result, Alexa's list of related links usually contains a few questionable choices. (When I'm at the Maytag Appliances Web site, the recommendations of other appliance manufacturers' sites make perfect sense. But I am at a loss to explain why MapQuest, a mapping tool, is recommended as well.)

Despite these occasional eccentricities, once you've found one site that's what you want—or almost what you're looking for—the related links index makes it easy to find others. It provides the convenience of Excite's "more like this" function, without making you trundle off to a search engine to do it.

Where does that usage pattern data come from? It comes from Alexa users like you. The program works by watching where you go on the Web, and in what order you visit sites. This information is reported to a central database. That information is completely anonymous, just the surfing pattern of another nameless Web surfer. So you don't have to be embarrassed if you're a regular, closeted, visitor to the Spice Girls Web page.

Alexa can bring pages back from the dead, sort of. A major feature is its ability to access an archive when a page that you want to access is unavailable. When you happen across that all-too-common "404: file not found" message, you can tap the toolbar's Archive button to try to retrieve a stored copy of that page from Alexa's 8-terabyte archive (some 500,000 Web sites). It's a great feature, but don't bother pressing that Archive button unless you really want that information. You may have to wait several minutes while the server loads the page from tape. (You can keep surfing in the meantime—Alexa will inform you when the missing page is available from the archive.)

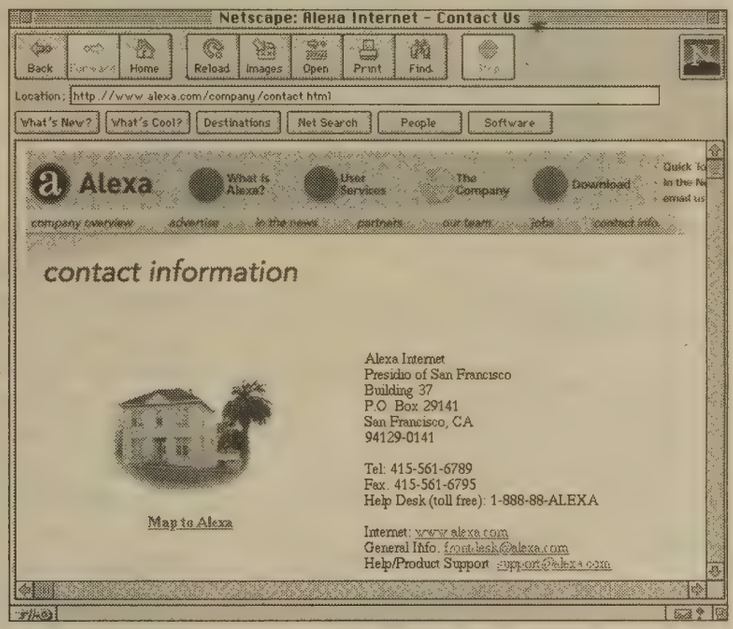
Back in Alexa's toolbar, you'll also find quick access to an online dictionary and encyclopedia. Oh, and you'll notice a postage-stamp-sized advertisement there as well. (Hey, it's a free program. Learn to live with it.)

Alexa won't force you through the trouble of upgrading every time a better version comes along. Its "auto update" capability means that enhancements will be installed without taking your time or attention. Remind me again why all programs don't have this capability?

For PCs, Alexa requires a 486 or Pentium family processor running Windows 95 or NT. It also requires Netscape Navigator or Microsoft Internet Explorer 3.0 or later—other browsers, such as Opera, won't work with it. On the Mac side, Alexa is still being alpha tested—and is prone to occasional crashes, as alpha versions are wont to be. It requires a PowerPC running MacOS 7.5 or later. You can get more information about Alexa or download the program from *www.alexa.com*. ◆

Copyright © 1998 by Kevin M. Savetz. All rights reserved.

Alexa won't force you through the trouble of upgrading every time a better version comes along. Its "auto update" capability means that enhancements will be installed without taking your time or attention. Remind me again why all programs don't have this capability?



QuickData - full press services
Graphic Design . Films Output . Color Printing
film 10"x 12" $10/pc
color printing 10% off*
Quality Printing
- Datasheet
- Stationery
- Newsletter
- Brochures
- Catalogs
- Booklets
- Manuals
- Posters

Digital Color Services
- Scitex Dolev Imagesetting up to 19" x 25"
- Auto Trapping
- Photo Scanning
- 3m Rainbow Color Proofer
- NAPS Overlay Proofs
- Pressmatch Laminate Proofs
- English/Chinese Capability
- Mac/PC Format

Professional Desktop Publishing
- Graphic Design
- Typesetting (English & Chinese)
- English to Chinese Translating

Direction: 880 take exit on Montague Expwy east, turn left on S. Main St., pass BP gas station, turn left on the first driveway, to the end turn left again.

QuickData Processing
1677 S.MAIN ST. MILPITAS, CA 95035
408.956.8855 408.956.8933
E-Mail: terryh@quickdataprocessing.com

* Please take this ad when purchasing. For full color printing only.

The Cable Guy

Rants (But Mostly Raves) About Life With A Cable Modem

By Kevin M. Savetz

A few weeks ago, I yanked the ISDN wires from the wall—and upgraded to a cable modem.

Back in 1995, a Pacific Bell truck pulled up to my house, and the nice man appeared with his clipboard and his rolls of wire. By the time the nice man left, he had installed ISDN, a type of phone line that would let me access the Internet at up to 112 KBPS. (He had also managed to create a 6" long gouge in the wood floor of my home office. Not that I hold any grudges.)

In 1995, most Internet users were plodding along at 14.4 or 28.8 KBPS. I was one of a relatively small number with access at 128 KBPS. ISDN was expensive and difficult to set up. But boy howdy, it was fast.

Fast forward to 1998, when there are a whole bunch of new choices for speedy Internet access. A few weeks ago, I yanked the ISDN wires from the wall—and upgraded to a cable modem.

With cable Internet access, the data that comes from the Internet to your computer is delivered by the same wire that brings 40 channels of news, entertainment, and that weird *South Park* show to your boob tube. It delivers hundreds of megabytes of data to your home every minute. A cable modem siphons off a smidgen of that bandwidth for Internet access.

Before you get too excited, I've got to warn you. You can't get cable Internet access yet from most locales in the United States. It requires that your cable company has special equipment and a positive attitude. (The cable company that my father is stuck with doesn't even provide stereo TV sound. He isn't holding his breath for cable Net access.) All I can suggest is to call your cable company and ask 'em for it.

Assuming your cable company is good to go, you'll need a few items to get this show on the road. First, you need a cable modem, the device that connects via a wire to the cable TV jack in the wall. The cable modem connects to your computer via Ethernet, so it will need an Ethernet card. (Ethernet is necessary because cable access is faster than the serial ports in most computers.) You may also need to attach the cable modem to a standard phone line. Although data that you receive comes via the TV cable, on some systems the data from your computer is sent via a traditional analog modem. This is called "modem return" or "telco return." Other systems can use the TV cable for your outgoing data—this is dubbed "cable return."

How Fast Is It?

Technical details can wait. I'm guessing that you want to know just how fast this connection really is. I'll relate my experiences with my cable Internet service provider (PeRKI.net), but keep in mind that various companies do things very differently. As the saying goes, your mileage may vary.

Earlier this evening, I downloaded the latest version of Netscape Communicator, weighing in at just over 10.4 megabytes, in about seven minutes. That works out to about 200,000 bits per second; roughly seven times the capacity of a 28.8 KBPS modem, or 3.5 times the bandwidth of a 56 KBPS modem. Netscape's servers may have been clogged, because I've seen better, up to twice that speed, about 400 KBPS.

Web pages also download quickly, although the speed increase doesn't seem as dramatic as with FTP. Since Web pages tend to be comprised of many small files rather that one great big one, there is more overhead. Therefore, your transmission speed and latency play more of a role in slowing things down. Streaming downloads work beautifully. It is safe to say that I've become spoiled, frequently listening to high-quality RealAudio feeds while surfing the Web and downloading files, with nary a hiccup in the sound.

400 KBPS is nothing to sneeze at, it is certainly enough for a single user, or shared in a small office. My cable access is actually on the slow side, some providers advertise access at 1,000,000 bits per second and higher.

Problems And Workarounds

Cable's not a magic bullet for unlimited speed. As with any Internet connection, your transfer time is limited by the capacity of the network and servers. If the network is clogged, your connection will suffer.

Most cable Internet access systems are asymmetric—that is, your capacity for sending data is less than for receiving it. Data flowing from your computer straggles out at a much slower pace—perhaps as slow as 14.4 KBPS. So, while cable can be a great tool if you download a lot of information from the Internet—accessing the Web, reading newsgroups, downloading files—it probably isn't your best choice if you want to send gobs of information. If you want to run a Web server or frequently upload megabytes of files to an FTP server, cable may not have the transmission speed that you need.

A quick tangent—most of us tend to discuss our Internet connection in terms of speed. This is a common mistake: When we're talking about KBPS, we're really talking capacity, not speed. A cable modem provides a lot of capacity, but not necessarily top speed.

The NetBITS Internet newsletter ran a wonderful two-part article all about this. Read it to find out why "speed" isn't really speed. The article is on the Web at: *www.netbits.net/nb-issues/NetBITS-015.html#lnk2* (part 1), *www.netbits.net/nb-issues/NetBITS-016.html#lnk2* (part 2).

I've got to warn you. You can't get cable Internet access yet from most locales inthe United States. It requires that your cable company has special equipment and a positive attitude.

Another factor that is completely up to the whims of your cable company is price. I have seen cable Internet access advertised for as low as $20 per month. I'm paying $57 per month for access, which includes rental of a cable modem.

For that price, PeRKI.net allots me one IP address. That is, I can connect one computer to the cable modem. I could pay an additional monthly fee for extra IP addresses, but I've found a better way. Using an $89 shareware program called IPNetRouter, my Macintosh acts as a router allowing me to connect a virtually unlimited number of computers on my LAN to the Internet via the cable modem. My computers don't know the difference, and neither does the cable Internet provider. IPNetRouter is available from *www.sustworks.com/~psichel/*.

Perhaps three years from now, I'll pull the cable wire from the wall and replace it with whatever cheaper, faster technology has been perfected by then. Until that day comes, cable access is an option to consider for a fast, cheap Net connection. ◆

Copyright © 1998 by Kevin M. Savetz. All rights reserved.

Resources:

For more information about cable modems, visit these Web sites:

CableModems.com
www.cablemodems.com/

Cable Modem FAQ from Cox Cable
www.cox.com/highspeed/modemfaq.html

Cable Modem University
www.catv.org/modem/

Index of Cable Modem Resources on the Web
http://rpcp.mit.edu/~gingold/cable/

Growing your business on the internet doesn't have to cost a lot

Get 2 months of web-hosting service for only $1.23 a month when you sign up for dedicated service with Verio Northern California.

Verio's dedicated internet connections give you a lot for your money. We'll work with you to define the best connection for the way you do business. We offer full T1, ISDN, DSL and Frame Relay -- so you can choose the connection that meets ***your*** needs.

With Verio's internet connection you also get:

- ***Local service:*** We have a local sales and support staff, and can even provide on-site installation for your dedicated connection.
- ***National resources,*** including a high speed, private, national backbone and 24x7 network monitoring
- ***Speed and reliability*** from our redundant network, redundant web farm, 310Mbps internet connection, and the most stable hardware and software from Cisco, Sun and others.

Just give us a call toll free:

1-888-597-8222

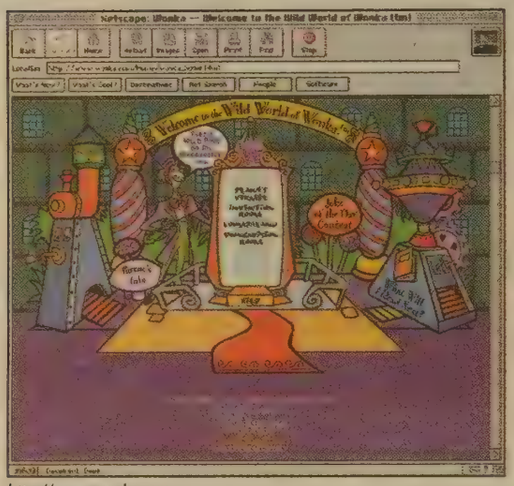
to get two months of web-hosting for $1.23 per month.

VERIO NORTHERN CALIFORNIA

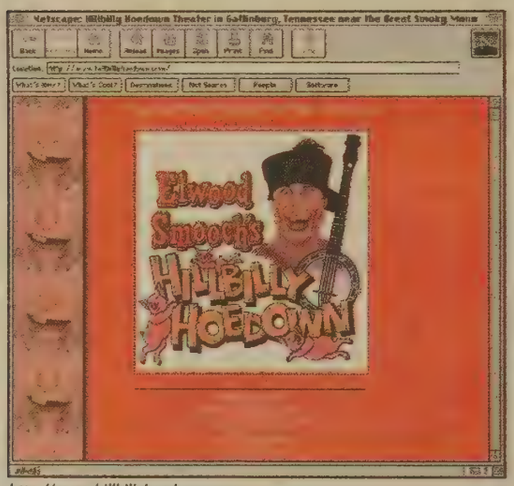
You can also visit us on the web at:
http://ncal.verio.com/123.html

Offer ends July 31, 1998.

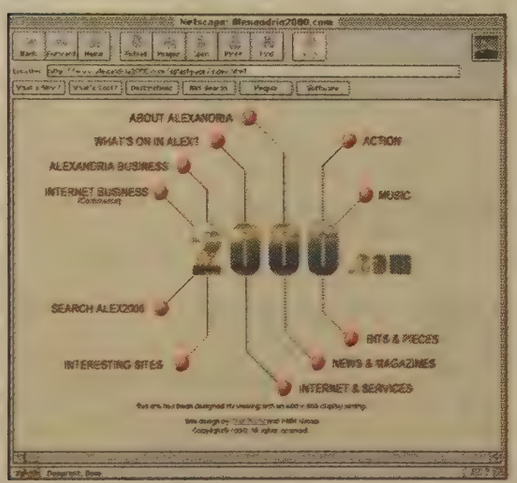
Web Page Listings



http://www.wonka.com



http://www.hillbillyhoedown.com



http://www.alexandria2000.com

Computer Products & Services

Aesthetic Solutions *http://www.aesthetic.com* Create dynamic 3D worlds in minutes using our virtual reality authoring tools—free demo available! [Exp. #182.]

CCH, Inc. *http://www.toolkit.cch.com* CCH Business Owner's Toolkit is a portfolio of information and software tools designed to help small business owners and home office entrepreneurs start, run, and grow their businesses. [Exp. #180.]

Computer System Solutions *http://www.comput.com* IBM-compatible systems. High-quality, competitive prices. Warranty and support included. Since 1989. [Exp. #181.]

Digital Auction *http://www.digital-auction.com* A new online auction for PC systems, hardware, and computer upgrades. [Exp. #181.]

Follgard Group Inc. *http://www.follgard.com/* A hi-tech, multimedia, communications, and marketing company, specializing in CD-ROM, Web site, e-commerce, telephony, and software development. [Exp. #181.]

JC Enterprises *http://www.jcenter.com/* Business computers and related products. [Exp. #182.]

JEM Computers *http://www.jemcomputers.com* Since 1992, JEM has been known for selling top-notch refurbished and manufacturer's excess inventory for 25% to 45% below retail. [Exp. #180.]

MacShareware.com *http://www.macshareware.com/* The site currently hosts shareware games and commercial demos. A complete custom database is being built to host the complete realm of Macintosh shareware. [Exp. #182.]

Match Software Fonts *http://www.matchfonts.com* Online font catalog for Windows, Mac, and OS/2. [Exp. #181.]

micro2000 *http://www.micro2000.com* [Exp. #180.]

Mind Of The Machine *http://www.mindofmachine.com/* Custom software company. [Exp. #182.]

PCSDirect Software Superstore *http://pcsinternet.com/office/eric* Over 40,000 software titles of the latest and best software the industry has to offer. [Exp. #180.]

Polaris PackRat Professional *http://www.polarissoftware.com* A powerful, customizable desktop information management system. [Exp. #181.]

VTechSoft, Inc. *http://www.vtechsoft.com* [Exp. #180.]

Web/Internet Services

A+ACY-D Internet Consulting *http://www.adinternetc.com* Localized Internet presence, Web site development, e-commerce solution, online marketing. [Exp. #180.]

Absolute Magic Computers/Internet *http://www.absolutemagic.com* Affordable Web site design and maintenance, computer and network consulting. Ten years in Orange County. [Exp. #181.]

AceWeb Network *http://www.aceweb.net* [Exp. #180.]

Association Of Support Professionals *http://www.asponline.com* ASP announced the selection of the top ten Web-based customer support sites. [Exp. #182.]

Bargain Seeker *http://www.bargainseeker.com* A search engine for discount goods sold over the Internet. [Exp. #182.]

Birds Eye *http://www.birdseye.com* World's largest online recipe database. [Exp. #182.]

CatchTheWeb *http://www.catchtheweb.com* allows users to capture any Web page or series of Web pages, annotate and organize them, and arrange them into a presentation viewable in any JavaScript-capable browser. [Exp. #181.]

Cuenet *http://www.cuenet.com* Listservs, email, WWW, domain hosting, site development, and complete outsourcing. [Exp. #181.]

DBServe *http://www.DBServe.net* Database, commerce, online transaction, and streaming media (RealAudio/Video, NetShow) hosting for corporate clients. [Exp. #182.]

The Editors Advertising Agency *http://www.theeditors.com/* 20-year old full service ad agency specializing in Web page design, advertising, marketing, graphic design, and print collateral. [Exp. #181.]

E G H Corporation *http://www.eghcorporation.com* E-commerce catalogs, hosting, and Web site design. [Exp. #182.]

Free Money Making Web Site *http://www.Waimea-Bay.com* Earn up to $1,000 per week. Be on the Web today. [Exp. #180.]

Home Business Network *http://www.hbn.com/* Offering services, business opportunities, and advice for computer/mail order professionals and others working from their home. [Exp. #182.]

Internet Traffic Report *http://www.internettrafficreport.com* A Web site that tracks Internet traffic in real-time. [Exp. #182.]

IT Network *http://www.itnetwork.co.uk/* Internet TV and multimedia data storage information service. [Exp. #181.]

Nu Age Media *http://www.NuAgeMedia.Com* We do Web site development. [Exp. #180.]

Octadrive Productions *http://www.octadrive.com* [Exp. #180.]

SinaSearch *http://www.sinanet.com* The world's first complete Chinese/English search engine. [Exp. #181.]

Siris.com *http://www.siris.com/* Multimedia, communication, and Web design. [Exp. #181.]

TagGen *http://www.hisoftware.com/taggen.htm* TagGen makes your Web site presentable to search engine Web crawlers by generating appropriate meta tags. [Exp. #180.]

The-Best-Of.com *http://www.the-best-of.com* Users can vote for your business and win prizes. Business Web pages for $15/month. [Exp. #181.]

Web Precision *http://www.webprecision.com* Get a free Internet marketing consultation and discover how to make the Internet work for you. [Exp. #180.]

XLM.com *http://www.xlm.com* A new Web site that serves as a key resource and nerve center for XML developers and users. [Exp. #180.]

ZapMap *http://www.zapmap.com/index.html* Interactive, vector-based geographic hotspot directory of Web sites in Silicon Valley, written in Java. [Exp. #180.]

Financial/Real Estate Services

1% Homeseller *http://www.1homeseller.com* Discounted real estate fees, buyer rebates, homes for sale by owner in Southern California. [Exp. #181.]

Abacus International Financial Network *http://www.abacusintl.com/* [Exp. #182.]

American Capital Loans *http://www.debthelp.cc/* Providing loans for homeowners with no equity required. [Exp. #181.]

Development Finance Limited *http://www.dflpos.com* [Exp. #182.]

Durban Roodepoort Deep Gold Mining Group *http://www.drd.co.za/* Information for investors, analysts, researchers and others. [Exp. #182.]

Fidelity Capital *http://www.fidelitycapital.com/* Fidelity Capital is the new business development and venture capital arm of Fidelity Investments. [Exp. #182.]

HomeShark *http://www.homeshark.com/* The leading online mortgage and real estate services company. [Exp. #181.]

IOA Re *http://www.ioare.com/* A full service reinsurance underwriting manager specializing in the Accident and Health reinsurance and insurance fields. [Exp. #182.]

Jeremiah K. Murphy, CPA *http://www.jkmcpa.com/* Helping businesses succeed for over 20 years. [Exp. #182.]

The McLean Group *http://www.mcleangroup.com/* Real estate developers. [Exp. #181.]

Rate.net *http://www.rate.net/* Mortgage, CD, auto, and credit card interest rates are ranked and compared daily for over 11,000 financial institutions at RateNet. [Exp. #182.]

Ronald J. Riley's Internet Pages *http://www.rjriley.com/* Investor resources. [Exp. #182.]

Security Pacific Real Estate Brokerage *http://www.alolvera.com* Specializes on properties for the investor, in Contra Costa and Alameda counties. [Exp. #182.]

Stern Financial Services *http://mpb.com/sfs/* Retirement planning for educators. SFS offers personalized services and products to meet your individual financial needs. [Exp. #180.]

Technology Funding Capital Fund VI *http://www.techfunding.com* The first public security to be registered nationwide as an online offering and the first venture capital investment opportunity offered to small investors over the Web. [Exp. #182.]

Legal Services

NetCourt Web Site *http://www.interNetCourt.com* NetCourt is a leading provider of online trial and expert witness transcripts produced by court reporters from around the country. [Exp. #180.]

Richard J. Greenstone, Attorney at Law *http://www.rjg.com/* Copyright, trademark, licensing, business, and transactional law for the computer, entertainment, and publishing industries. [Exp. #181.]

Employment/ Education

Berklee College Of Music *http://www.berklee.edu* [Exp. #180.]

ConsultLink *http://www.consultlink.com* Over 19,000 computer consultants contractors are represented in the ConsultLink Web site. [Exp. #180.]

Fundamental Buddhism Explained *http://www.fundamentalbuddhism.com/* Explicit explanation of Buddhism, based on the Pali Canon, recognized by Buddhist scholars as the oldest surviving written record of what the Buddha actually said and taught. [Exp. #182.]

Historic American Productions Web Site *http://www.cyberramp.net/~hap/* Pioneer skills educational video series. [Exp. #182.]

HTML Spoken Here *http://www.geocities.com/~jimhanson* Free tutorial teaches you how to create your own Web page. [Exp. #180.]

Leslie H. Carter & Associates *http://members.aol.com/SU4MLK/index.html* Youth violence prevention and intervention programs designed to teach students social responsibility, citizenship, and skills to resolve interpersonal conflicts. See examples of curriculum. [Exp. #182.]

Mr. Brain Tutor *http://members.tripod.com/~russmccor/tutor.htm* Live teachers online: Tutoring in mathematics, English, computer programming, history, writing, etc. [Exp. #181.]

New Job Site *http://www.nethunter.net* [Exp. #181.]

Oak Tree Systems, Inc. *http://www.oaktree-systems.com* Software solutions for training centers. [Exp. #180.]

Teach Your Child To Swim With Aqua Tykes *http://www.aquatykes.com/* Teach your child to swim with ease and confidence! [Exp. #181.]

Organizations

Amnesty International *http://www.amnesty.org* Campaigns for fair trials, prisoners of conscience, and against torture, degrading or inhumane treatment. [Exp. #180.]

Arizona Environmental Health Association *http://www.aeha.org/* Non-profit association for the advancement of environmental health in Arizona. [Exp. #182.]

Condo Management Online *http://www.condomgmt.com/* The premier resource for community associations. [Exp. #181.]

Cult Awareness Resources, CARES *http://cares-cares.org* Provides information to the campus community about cult activity, including International Churches of Christ information. [Exp. #180.]

Doctors Of The World *http://www.doctorsoftheworld.org* Dedicated to improving the health and relieving the suffering of vulnerable people throughout the world. [Exp. #180.]

Global Fund For Women *http://www.globalfundforwomen.org* A grant-making foundation that provides flexible, timely assistance to grassroots women's groups around the world. [Exp. #180.]

Golden Gate Computer Society *http://www.ggcs.org* Meetings on the 4th Monday each month at the San Rafael Community Center. [Exp. #182.]

Institution of Incorporated Engineers *http://www.iie.org.uk/iie* The UK's largest professional association in electronic, electrical, and mechanical engineering for incorporated engineers and engineering technicians. [Exp. #181.]

Jewish Scientist Network *http://www.jsn.org/jsnhome.html* An information server based on reader submission of articles, news, links, references, etc., all pertaining to Jewish issues relating to the sciences or scientific issues. [Exp. #180.]

KidsHealth Club *http://www.ama-assn.org/KHClub* The purpose of the American Medical Association's (AMA) new KidsHealth Club is to help parents raise healthy, happy children. [Exp. #182.]

Main Street United Methodist Church *http://www.jfsi.com/msumc.htm* Kernersville, NC's friendliest and most vibrant Church. [Exp. #181.]

National Center For Employee Ownership *http://www.nceo.org/* Articles, columns, discussions, and interactive training on employee stock ownership plans, stock options, etc. [Exp. #182.]

Neighbors For Responsible Logging *http://www.responsible-neighbors.org* A grass-roots environmental group. [Exp. #182.]

NetAction *http://www.netaction.org/training* NetAction's Virtual Activist, a comprehensive training course on cyber-activism, is now on the Web. [Exp. #180.]

New 1998 NACA Web Site *http://www.naca.org/index.html* [Exp. #180.]

Nizkor *http://www.nizkor.org* Transcripts from the Nuremberg trials of convicted Nazi war criminals are now posted to the Web by Nizkor. [Exp. #180.]

NOCCC (North Orange County Computer Club) *http://www.noccc.org* Web page of computer user group. Meetings: 1st Sunday of the month, 9:00 am, Chapman University, 333 N. Glassell Ave., Orange. [Exp. #180.]

Performance Animation Society *http://www.PASociety.org* 3D character and performance animation/motion capture SIG. [Exp. #181.]

Rainforest Foundation *http://www.charityprofile.co.uk/rainforestfoundation.html* Est. in 1989 by Sting and his wife, Trudie Styler, to help save the Brazilian rainforest. [Exp. #180.]

Santa Clarita Valley's PC Group *http://www.smartlink.net/~scvpcg* The Santa Clarita Valley's PC Group is dedicated to PC literacy. Come join us. [Exp. #180.]

SFAUG: San Francisco AutoCAD Users Group *http://www.sfaug.org* Meets 1st Monday each month, 6-8:30, usually at the SFSU Downtown Center at 425 Market St. [Exp. #180.]

Warchild *http://www.warchild.org* Works to alleviate the suffering of children by bringing material aid into war zones. [Exp. #180.]

Government/ Politics

Alberta (Canada) Strike Solidarity Page *http://www.geocities.com/CapitolHill/5202/cargill.html* Get updated labor news. Check out our campaign for anti-scab legislation. [Exp. #182.]

Berkeley Citizens Action *http://www.jps.net/bca* The municipal electoral coalition that has organized Berkeley progressive politics for the last two decades. [Exp. #180.]

California Trade And Commerce Agency, Division Of Tourism *http://gocalif.ca.gov* [Exp. #180.]

Democracy Direct *http://www.marinternet.com/rknox/car15.html* Reclaiming democratic representative government by giving the national and state electorates a meaningful and direct voice (not the last word) in state and national government. [Exp. #181.]

Library Of Congress *http://www.loc.gov* [Exp. #180.]

May Day On the Web 1998 *http://www.accessweb.com/mayday/* Workers fight for human rights. [Exp. #181.]

Nuclear Age Peace Foundation *http://www.wagingpeace.org/* Home of Abolition 2000. [Exp. #180.]

Arts

American Photographer In Spain *http://www.geocities.com/Soho/Gallery/5718/feria.html* Images of The Spring Fair (La Feria) in Spain! [Exp. #181.]

Art-Smart *http://www.art-smart.com* An easy method for an artist or gallery to showcase their artwork in a fully searchable database of art on the Web. [Exp. #182.]

ArtsLink Australia *http://www.artslink.org.au/* Professional performing and entertainment site. [Exp. #181.]

Artuframe *http://www.artuframe.com/* The world's largest online art and framing gallery featuring discounted artworks, mats, framing services and other art-related products. [Exp. #182.]

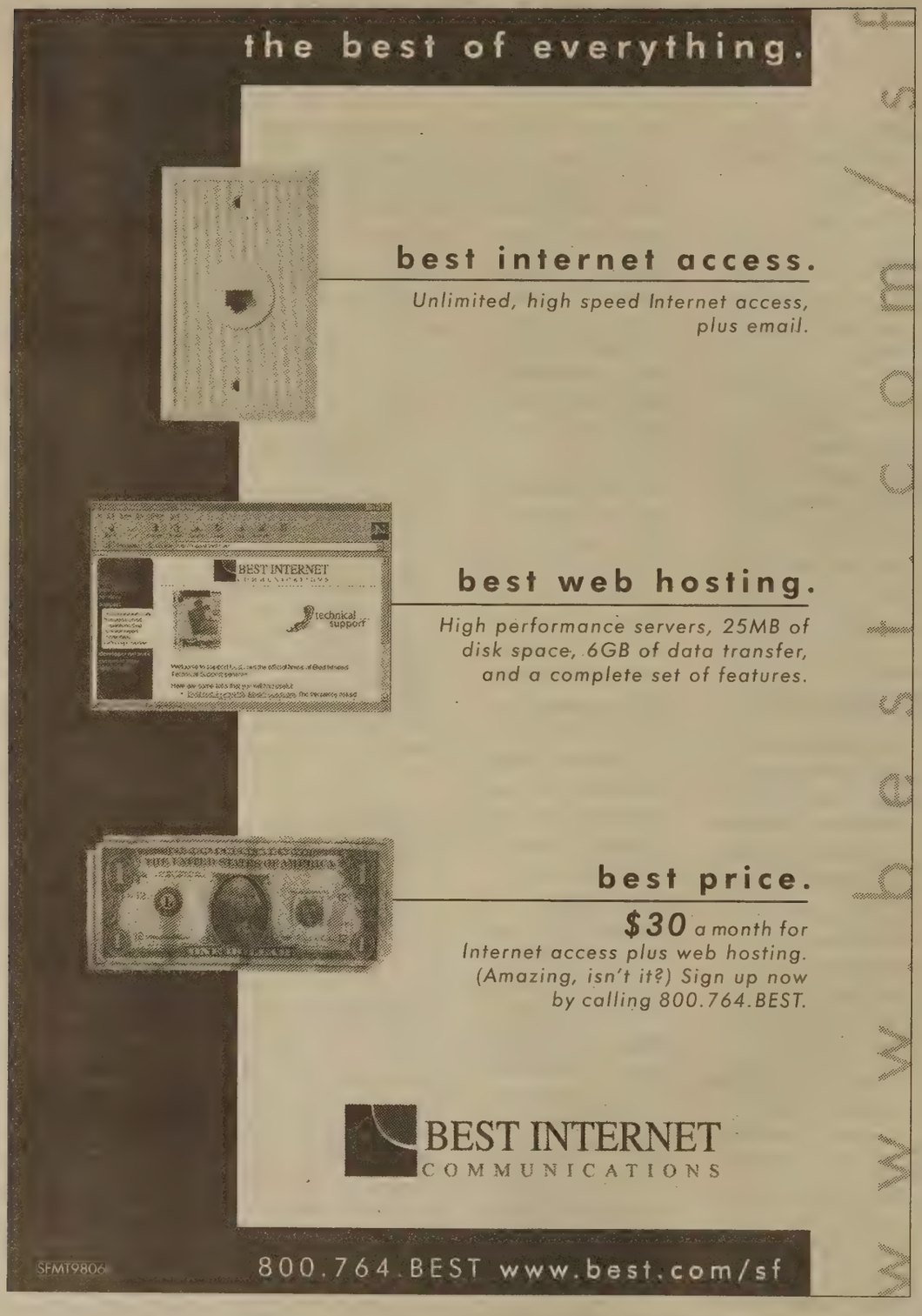
Cannonball Express *http://www.best.com/~canonbal* A video project-in-progress about urban firestorms, fire safety, and environmental issues. [Exp. #182.]

Filipino American Exposition *http://primaveradesign.com/faae.html* Shows this year's schedule of festival and other events. [Exp. #180.]

One Art World *http://www.oneartworld.com* A free Web-based art gallery exhibiting artworks by contemporary, distinguishing artists. [Exp. #181.]

PaintingsDirect.com *http://www.paintingsdirect.com/* A new way to find and buy paintings. [Exp. #181.]

Peter Findlay Gallery *http://www.findlay.com/* Art gallery. [Exp. #181.]


the best of everything.
best internet access.
Unlimited, high speed Internet access, plus email.
BEST INTERNET
technical support
best web hosting.
High performance servers, 25MB of disk space, 6GB of data transfer, and a complete set of features.
best price.
$30 a month for Internet access plus web hosting. (Amazing, isn't it?) Sign up now by calling 800.764.BEST.
BEST INTERNET COMMUNICATIONS
SFMT9806
800.764.BEST www.best.com/sf
www.best.com/sf

MarketPro Show Hrs. 10 - 5pm

COMPUTER SHOWS & SALES

- SUN. MAY 24 - SANTA ROSA *Sonoma Co. Fairgrounds*
- MON. MAY 25 - MODESTO *Centre Plaza at Double Tree*
- SAT. MAY 30 - STOCKTON *San Joaquin Co Fairgrounds*
- SUN. MAY 31 - SACRAMENTO *Sottish Rite Center*
- JUNE 6&7 - SACRAMENTO *Cal Expo*
- JUNE 13&14 - VALLEJO *Solano Co. Fairgrounds*
- SAT. JUNE 20 - SANTA ROSA *Sonoma Co. Fairgrounds*
- SUN. JUNE 21 - SACRAMENTO *Sottish Rite Center*
- SAT. JUNE 27 - FRESNO *Fresno Fairgrounds*
- SUN. JUNE 28 - STOCKTON *Civic Auditorium*

$1 OFF Adm. W/Ad Regular Adm $6

For Info.: (415) 456-6730

Internet: http://marketpro.com

SAVE UP TO 90% HARDWARE • SOFTWARE • ACCESSORIES

Ted Alvy Cosmos Topper Home Page *http://pages.prodigy.com/FNJD74A* Art of '60s L.A. underground radio, rebop, beatniks, hipsters, hippies, zoot horn rollo. [Exp. #182.]

Entertainment/ Leisure

The Adrian Empire *http://192.41.53.160/* A medieval re-creation group, featuring live steel combat. Attain Knighthood in three disciplines. [Exp. #180.]

Alex Fox, Flamenco Guitarist *http://www.alexfox.com/* Alex Fox has created his own unique style of music, combining classical guitar, flamenco, and pop. [Exp. #181.]

Alexandria Official Web Site *http://www.alexandria2000.com/* [Exp. #182.]

Australian FanSite of Chubby Checker *http://www.ozemail.com.au/~facerg/chubby.htm* Chubby Checker, the biggest music Web site on the Internet. [Exp. #182.]

The Blarney Stone *http://members.tripod.com/~iwolff/index-2.html* Award winning Irish Humorist offers samples of his columns, parodies, essays, and other laugh-out-loud observations. [Exp. #181.]

Bogota Colombia *http://www.bogotacolombia.com/* Todo sobre la capital de Colombia—The city, the enterprises, and the people of Bogota. [Exp. #181.]

Cashmere Heights Weddings *http://www.chc-weddings.co.nz* New Zealand's most exclusive wedding and honeymoon company. [Exp. #180.]

Chess The Fourth Dimension *http://chess4d.com/* Four way, four person chess game. [Exp. #182.]

Creativemusic.com *http://www.creativemusic.com* Online sheet music store and so much more! [Exp. #182.]

Dee Zaster, Esq. *http://members.tripod.com/~russmccor/* Guess who just entered the race for Governor of California? Don't miss DZ's campaign to drive Pete Wilson crazy and out of office. [Exp. #180.]

Dial-A-Joke *http://www.howdyneighbor.com/batteryman/ra.htm* The old recordings are back and on the Internet. Stuff recorded up to 20 years ago. [Exp. #181.]

Entertainers' Network *http://www.entertainers.net* Bringing a whole new concept to the world of booking an act for that special event. [Exp. #182.]

Exploration Network *http://www.exn.ca/* The Discovery Channel online. [Exp. #182.]

Explore Nova Scotia *http://explorens.rivendell.ns.ca/* One stop guide to exploring the Province of Nova Scotia, Canada. What to see, how to get there, where to stay, and things to do! [Exp. #180.]

Find A Joke *http://www.find-a-joke.com* A large collection of all kinds of jokes and other humor. [Exp. #181.]

Hillbilly Hoedown *http://www.hillbillyhoedown.com/* The happiest show In the Smokies. [Exp. #181.]

Jazz/Saxophone *http://www.jazzcorner.com/harper.html* Jazz musician's site contains soundbytes, photos, fan-club info., purchase CDs, and more. [Exp. #182.]

KROQ 106.7 *http://www.cosmoslink.net/~kroq* This award-winning page is on "the world-famous KROQ 106.7 FM." Lists of DJs, events, and much more. [Exp. #180.]

KZ Mobile Entertainment Services *http://pw2.netcom.com/~lilalynn/KARAOKEZONE.html* KJs/DJs, vocal acts, photographer, etc.; Karaoke show listings and equipment distributor. [Exp. #182.]

Love Psychic Ariele *http://www.ariele.com/* 1-888-289-2681 Clairvoyant, phone readings, and love magic. [Exp. #181.]

Mark L. Falconer Film Page *http://members.aol.com/MFalc1/home.html* Reviews of currently released films and videos. Occasional commentary on the industry. [Exp. #180.]

The Official Seinfeld Web Site *http://www.seinfeld.com* [Exp. #182.]

Online Hotel Reservations *http://www.chms.net/* [Exp. #182.]

Outdoor Adventure *http://www.kjaerulf.dk/* Everything for the outdoor adventure. [Exp. #182.]

PC GAMES Realm *http://www.geocities.com/~mechdig* The latest news, reviews, cheat codes, and much more from your favorite PC games. [Exp. #182.]

Proline Fishing Products *http://www.prolinefishing.com* Bass fishing lures. Fresh water, custom quality, for novice and professional anglers. [Exp. #181.]

Puro Tejano En Vivo *http://www.purotejano.com* Official Web site for Puro Tejano En Vivo television show. [Exp. #182.]

Rosewood Music Publishing & Sales *http://www.rosewoodmusic.com* We publish and promote independent music artists and writers. [Exp. #180.]

Royal Crown Guest House *http://members.aol.com/jmain10478/royalcrown.html* Guest house. [Exp. #182.]

San Diego Regional Online Guide *http://www.sandiegolocal.com/* Covering events, theater, real estate, businesses, and communities in the Greater San Diego Area. [Exp. #182.]

San Francisco Brewed *http://members.xoom.com/sfbrewed* The finest unsigned and indie bands of the Bay Area! We're also RealAudio enhanced! [Exp. #181.]

San Jose's Technology Museum Of Innovation *http://www.thetech.org* [Exp. #182.]

Spirit Mall *http://www.spiritmall.com* A site designed for cheerleaders, dancers, mascots, and coaches. Find the latest products, services, and fun contests! [Exp. #182.]

Star Theatres Online *http://www.star-theatres.com/* Show times, movie information, and more. [Exp. #182.]

Star Trek Universe *http://www.uss-1701-e.com/* Covering all four shows with features that include a gallery, gossip, news, and more. [Exp. #181.]

Telery *http://www.telery.com/* A place to chat, play games, and have fun with your friends! Live chat, a casino, online games, free email and homepages! [Exp. #181.]

Ticketvision *http://ticketvision.com/* Online ticket service for premium seating to all events nationwide. [Exp. #182.]

Total Conversions *http://www.totalconversions.com/* Total conversions for all games like Duke Nukem 3D, Shadow Warrior, Blood, Quake, Quake 2, and many more. [Exp. #180.]

Tourette's Nirvana Page *http://www.geocities.com/heartland/pointe/8988/* [Exp. #181.]

Travel In Asia *http://www.ziegworld.org/* Pictures from countries around Asia. [Exp. #182.]

Travel With A Cause *http://www.miramed.com/* Travel in Russia, China, and Nepal. [Exp. #181.]

Underworld Software *http://www.uwgames.com/* Try a free demo of BloodBath and you could win $500! [Exp. #180.]

Virtual Zone *http://www.mnet.fr/virtualz* Astuces and cheats for Playstation, Saturn, N64, PC. [Exp. #180.]

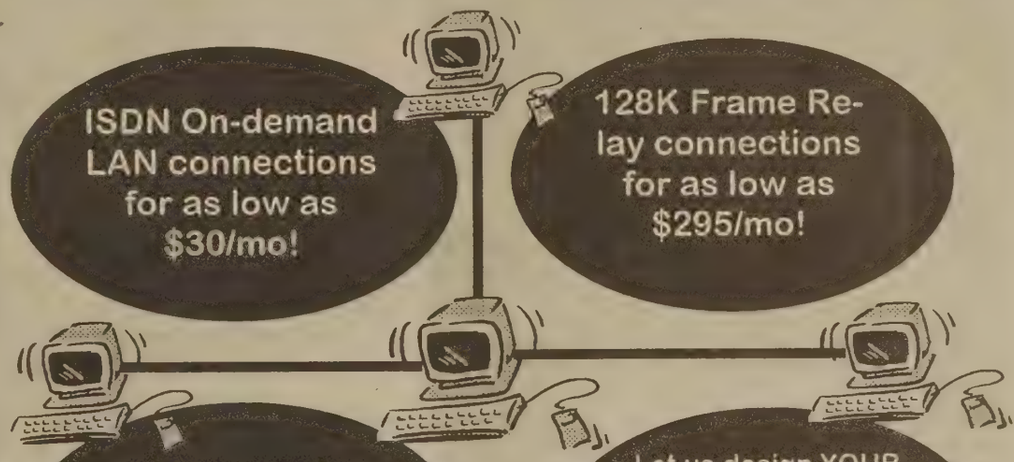
Willy Wonka Candy Factory *http://www.wonka.com* Wonka.com enables kids of all ages to navigate through the factory on the WONKAvator, accessing various rooms with in Wonkas wonderfully unusual factory. [Exp. #182.]

Zap Theatre *http://www.zap.dk/ofr.html* A place for the small theatres of the world. [Exp. #182.]

Value Net

INTERNETWORK SERVICES

Your One Stop Shop for Internet for Business and Home!

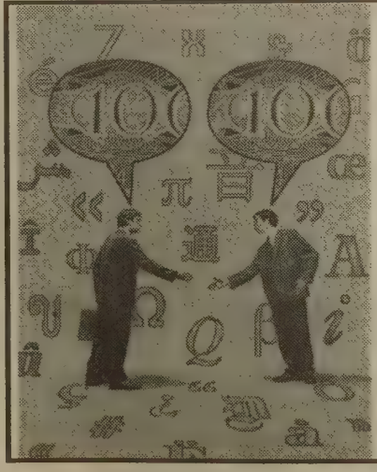

ISDN On-demand LAN connections for as low as $30/mo!
128K Frame Relay connections for as low as $295/mo!
Internet, E-Mail and Web Publishing for your business: $39/mo
Let us design YOUR business Internet solution!
Call us and describe your needs and we'll find the answer for you!

Unmetered PPP dial-up accounts are STILL just $20 per month!

Call ***Value Net*** *now to find out more about what we can do for* ***YOU!***

Value Net Internetwork Services
2855 Mitchell Drive, Suite 105
Walnut Creek, CA 94598
Phone (925) 943-5769
Fax (925) 943-1708
On the web: **http://www.value.net**

K56 FLEX



Mention *MicroTimes!*

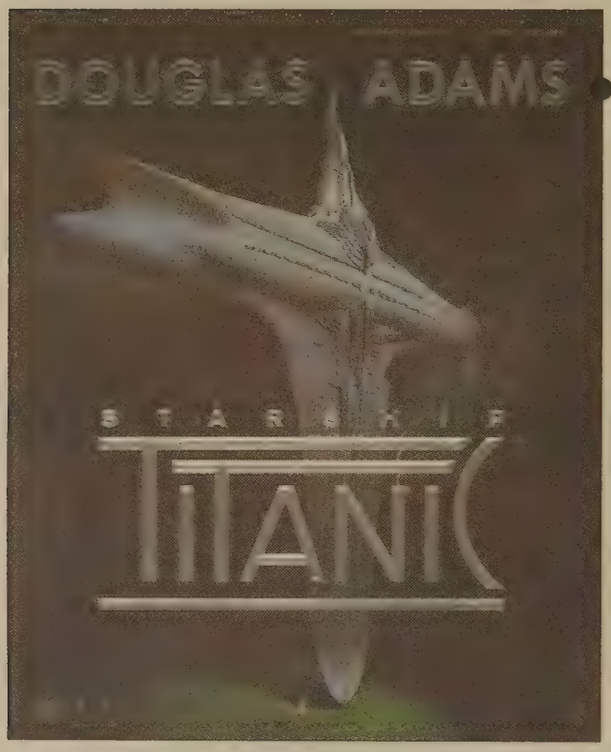
Did you read about a new product in *MicroTimes*?

Let our advertisers know you read it here. The more you mention our name, the better our magazine can service your computer needs.

MICROTIMES
www.microtimes.com
(510) 768-1200

Product Announcements

Windows Software

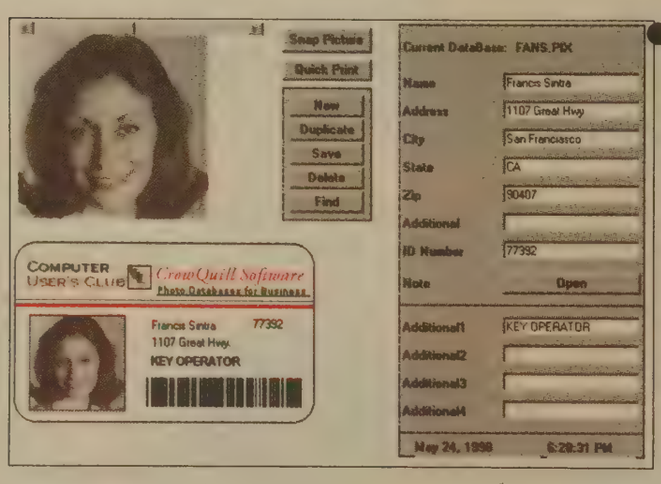


Douglas Adams' Starship Titanic

Douglas Adams' Starship Titanic, a three CD-ROM adventure game that features dynamic language processors (more than 14 hours of recorded dialogue and a library of more than 12,000 popular references) that are capable of facilitating conversations between the player and the game's characters. The ship offers elegant lounges, palatial vestibules, and first class staterooms located on more than 30 decks. It is inhabited by a crew of malfunctioning robots and a semi-deranged parrot. In order to progress, the player must secure the cooperation of the parrot and learn to communicate with the ship's cast of idiosyncratic "bots." The player's challenge is to solve a series of bizarre and surreal puzzles, correct the ship's central navigation system and return to Earth before the behavior of the parrot drives him or her crazy. ($49.95, Windows 95) Simon & Schuster Interactive. *www.ssinteractive.com* or *www.starshiptitanic.com* .

MasterPhotos Studio

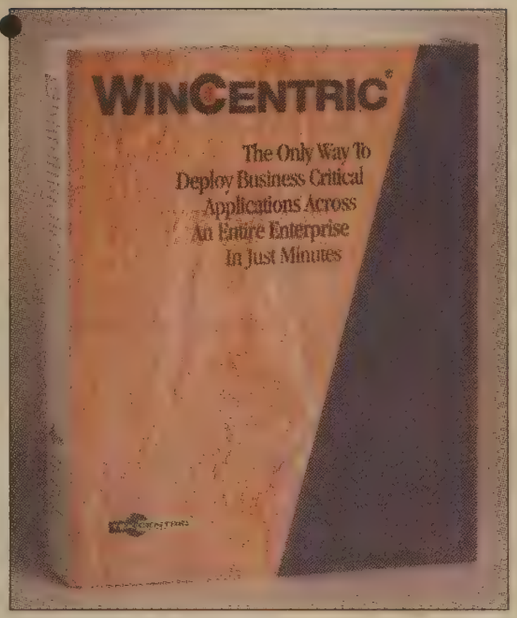
MasterPhotos Studio offers four software packages in one: HotShots, Graphics File Converter, MasterPhotos 25, 000, and NetCard. The HotShots feature is a photo-editing utility which allows users to edit photographs to eliminate common problems like poor lighting and "red-eye". The Graphics File Converter feature enables users to convert images to the most popular file formats. MasterPhotos 25,000, includes thousands of high and low resolution images so users can quickly customize presentations, Web sites, and pre-formatted project templates. The NetCard gives users a way to jazz up their email communications. It's a tool for both the computer novice and the busy small office/home office professional. With an easy-to-use interface and features such as Digital Camera and Scanner Adjustment, it will allow any computer user to edit photos like a pro. ($39.95) IMSI, Corp., 1895 Francisco Blvd. E., San Rafael, CA 94901. 1-800-883-8082. *www.imsisoft.com* .



ID•pix

ID•pix is a flexible, photo identification database that lets you issue color or black-and-white photo identification employee and member cards instantly. Small businesses and individuals who have a need for security and identification, or digital photo data records will also find many ways to use this software. It lets you create multiple, relational databases that store digitized photos and text. ID•pix is completely customizable, and will configure cards or album pages that range in size from standard credit card size up to full 8" x 11" pages. The package also includes a label maker, bar code 3 of 9, Postnet zip codes for mailings, and 100 blank ID cards. The program comes with a wide selection of templates you can use as is or modify, or you can design your own on WYSIWYG screens with drag-and-drop ease. ($99) CrowQuill Software, Inc., 1407 Gretel Ln., Mountain View, CA (650)964-5272, *cqstudios@aol.com* .

WinCentric Enterprise



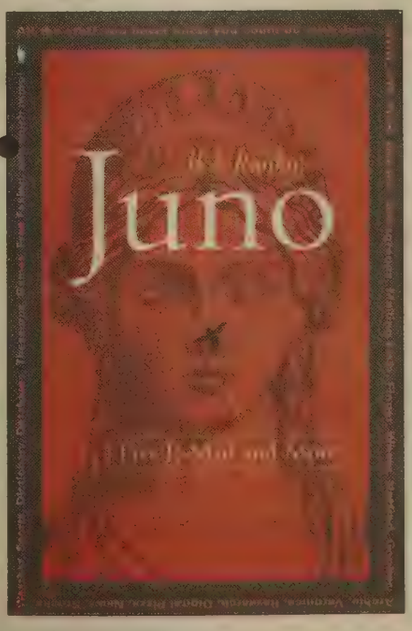
WinCentric Enterprise, the first in a series of new products from TekCentric targeted toward the enterprise computing market, is a thin client application deployment add-on to off-the-shelf Windows NT Server 4.0. With WinCentric, all business critical applications can be moved from the desktop PC to your server without modification. By centralizing business critical applications, more people throughout the enterprise will have access to these applications, while increasing security and lowering administration costs. Utilizing TekCentric's Remote Presentation Protocol (RPP), WinCentric allows for seamless integration into client desktops—allowing remote application Windows to appear on the client desktop as true local Windows. Users running Windows NT, 95, 3.11, DOS, and browsers will have access to business critical applications over Internets, intranets, and extranets. ($1,995 for a 5-user license with additional 5-user licenses available for $895) TekCentric Corp., 155 P. Moffett Park Dr., Sunnyvale, CA 94089. (408)752-8100. *www.tekcentric.com* .

ZipMagic 98

This successor to ZipMagic retains its ability to use Zip compressed files without unzipping them first and adds a wide-range of new features like: The ZipSurfer plug-in that allows you to download, unzip, and install software automatically from within a Web browser; a ZipMail plug-in that lets you Zip and send files from within popular email clients; a ZipTools program that makes it easy to view the contents of Zip files, open non-standard compressed files, and access advanced functions; and automatic spanning for backups or sharing Zip files with others. There is also expanded support for non-Zip compressed files, it can now open 17 different compression and email encoded formats, including RAR, PAK, and ARC. ZipMagic 98 runs on Windows 3.1, 95, 98, or NT with at least 8MB of RAM (16MB for NT users) and 7MB of free disk space. ($39.95) Mijenix Corp., (303)245-8000 or 1-800-MIJENIX. *www.mijenix.com* .

Books

Juno: Free EMail And More



Juno, a free, advertiser-supported email service, already has over 4 million users, but it doesn't come with instructions (and technical support costs $1.95 per minute). Author Bob Rankin shows Juno users the basics on how to use Juno to access the Internet's many resources by email. He delivers detailed hints and tricks that both novice and experienced Juno users will use to get the most out of their free Juno account. Readers learn: How to use Juno to send, receive, reply to, forward, and delete messages, and manage mail folders; to maximize Juno's potential with advanced (and undocumented) features; how to troubleshoot problems that may occur; the finer points of netiquette, spam, and email privacy; simple email commands to access almost anything on the Internet (the World Wide Web, FTP libraries, USENET newsgroups, and search engines); and how to find and subscribe to Internet mailing lists. ($14.95) No Starch Press, 1-800-420-7240. *www.nostarch.com* .

Updates

Brøderbund Software, Inc. announced **Kid Pix Studio Deluxe**, an art CD-ROM for kids. It encourages children to unleash their imaginations and exercise their creative and artistic skills. ($29.99, both Windows and Mac versions) Brøderbund Software, Inc., 1-800-521-6263. *www.broderbund.com* .

Cinovation, Inc. have released **Scriptware for Mac 1.0**. Until now, this word-processing software was only for PCs. This software automatically formats and paginates scripts to odd and exacting rules that Hollywood demands. Cinovation, Inc., 1-800-788-7090. *www.scriptware.com* .

Dantz Development Corp., introduced the release of **Retrospect Express** that is optimized for backup to removable media including Zip, Jaz, SyQuest, MO, and CD-R/RW drives. ($49.95) A retail version will be available in July. Dantz Development, 1-800-225.4880. *www.dantz.com* .

Development Corp., announced the availability of version 1.4 of the Retrospect 4.0 Driver Update. The free update adds support for more than twenty new backup mechanisms to Retrospect 4.0. The update is available at *www.dantz.com/upgrades_and_updates.html* .

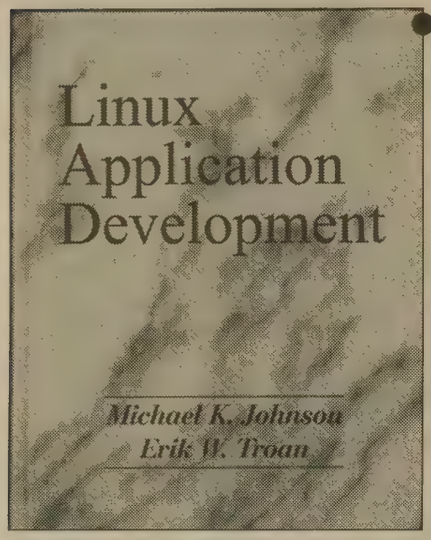
LANovation released **PictureTaker version 1.5** that lets Corporations achieve the goal of eliminating Windows downtime. Two new features include "search" and "un-distribute." (Enterprise Edition starts at $450 for 10 workstations) LANovation, 1-800-747-4487. *www.lanovation.com* .

Lasergraphics presented **WinRascol 4**, software that was developed for digital film recorders and includes exclusive Power Smoothing Technology that corrects the color banding problems in PowerPoint 97. It is both Windows 95/98 and NT 4.0/5.0 compatible. ($395) Lasergraphics, 1-800-727-2655. *www.lasergraphics.com* .

Maximizer Technologies Inc. introduced **Maximizer Enterprise**, an enterprise computing solution that contains all the features of the Maximizer 97 contact manager, plus a fully-integrated Opportunity Management System and Group Security features. ($249.95) Maximizer Technologies Inc., (604)601-8025. *imt@maximizer.com* .

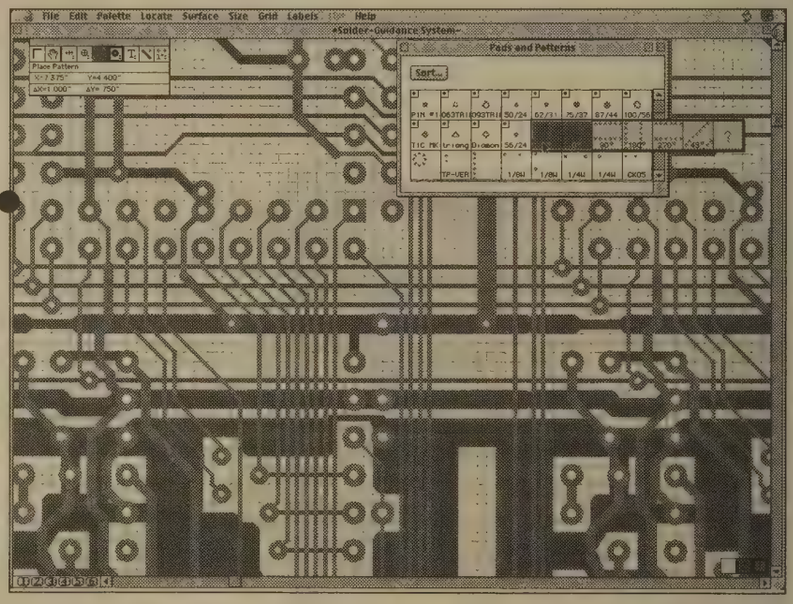
Network Instruments, LLC unveiled **Observer 5.0**. This protocol analyzer enables system administrators to perform network troubleshooting without incurring high costs that would typically be associated with vendors. ($695) Network Instruments, LLC., (612)932-9899. *www.networkinstruments.com* .

Seattle Lab shipped **SLmail version 3.0**, a new generation mail server designed for the all-new Microsoft architecture. (A free two-week trial period; it may be downloaded from *www.seattlelab.com*)



Linux Application Development

Linux Application Development is a practical reference guide for programmers developing Linux applications or porting applications from other platforms. Linux is fundamentally similar to UNIX—therefore much of the book covers ground familiar to UNIX programmers—but this book consistently addresses topics from a Linux point of view. The aim throughout is to provide the detailed information you need to take full advantage of Linux. Written by two Linux developers—Michael Johnson and Erik Troan—the book takes full advantage of their experience. The book will appeal to programmers across different levels of experience. It will help the proficient UNIX programmer make a transition to Linux. It will help a C programmer who doesn't know UNIX or Linux, by providing many examples for a solid introduction. And it will help experienced Linux programmers tackle advanced and otherwise confusing topics. ($45.95) Addison Wesley Longman, *www.awl.com/cseng/titles/0-201-30821-5* . (781)944-3700.



Macintosh Software

Layout Freeware

Layout Freeware is the freeware version of Douglas CAD/CAM Professional Layout program for the Mac OS. It is designed to give users quality, free software that they can use to produce circuit boards at reasonable costs. It allows you to design Printed Circuit Boards in a 32' x 32" working area with a database resolution of 0.001" and it accommodates a wide variety of grids, pads, holes, and traces, all user definable. With fifty-two different view scales, you can examine the entire layout or concentrate on details areas of any size. For SMT applications, both component side and solder side SMT footprint libraries can be downloaded from the Douglas Web site. Layout Freeware can also be used to design sheetmetal parts, such as enclosures or front panels for the designer's PCBs. If you choose to use Douglas's production facilities, your boards will be produced directly from your design file (no translation to Gerber files required). Layout Freeware requires System 6.0.8 or later and is downloadable from *www.douglas.com/software/freeware/index.html* . Douglas Electronics, Inc., 2777 Alvarado St., San Leandro, CA 94577. (510)483-8770.

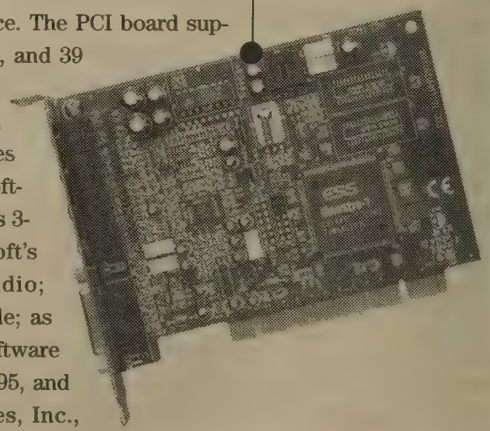
Xcluder

Xcluder, an XTension for QuarkXPress, works with Helios EtherShare OPI to dramatically reduce the time it takes to print large Postscript files. OPI speeds printing using low resolution files for page composition that are swapped to corresponding hi-res files during proof and file printing to film or plate. Printing cam be done even faster with EtherShare OPI using the "omit tiff & eps" switch found in the QuarkXPress dialog box. However, this option is seldom used because real world pages rarely contain only low-res raster data. The Xcluder XTension addresses this problem. It recognizes EtherShare OPI low-res images and, during printing, only sends the necessary header information in the image that OPI needs to swap in the hi-res images. Xcluder requires PowerPC or 68K Mac OS running System 7.0 or higher; QuarkXPress 3.31 or higher; with Helios EtherShare OPI 1.2 or 2.0. (10 user license, $5,950 with a 10 user add-on for $2,950) AXPA Electronics AB. *www.axpa.se* . US distributor: Helios Software, 269 Mt. Hermon Rd., Ste. 100, Scotts Valley, CA 95066. (408)461-6061.

PC Hardware

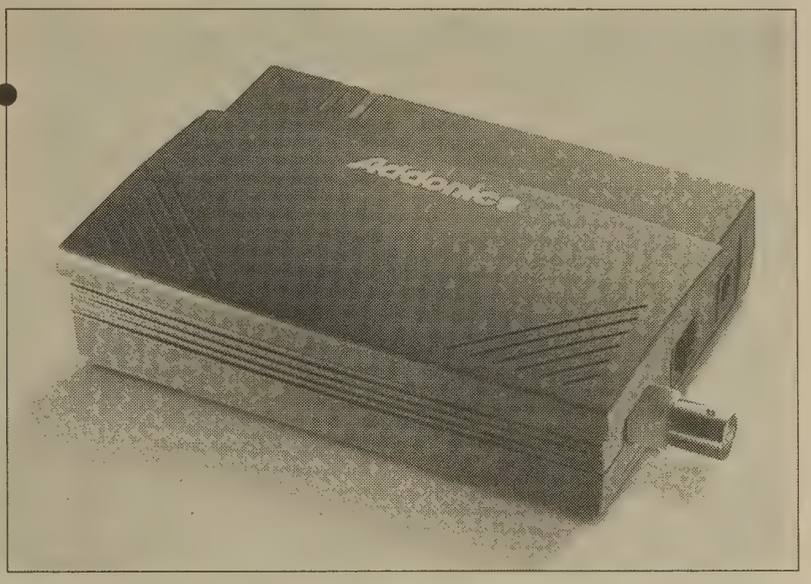
SoundVision Awesome PCI Sound Card

This is a 64-voice hardware wavetable PCI sound card with a 32-bit PCI bus master system interface. The PCI board supports DirectSound mode, A3D mode, and 39 positional audio. Special effects include reverb, chorus, flange, echo, and 39 spatial enhancement. It comes with a CD that contains the driver software and utilities, including: Mixman's 3-Mix, a music creation utility; Midisoft's Studio LE, a complete MIDI studio; Multimedia Doctor-MPC Smart Guide; as well as a music library. It includes software drivers for DOS, OS/2, Windows 3.1, 95, and NT. ($49.99) Addonics Technologies, Inc., 48434 Milmont Dr., Fremont, CA 94538. 1-800-787-8580. *www.addonics.com* .

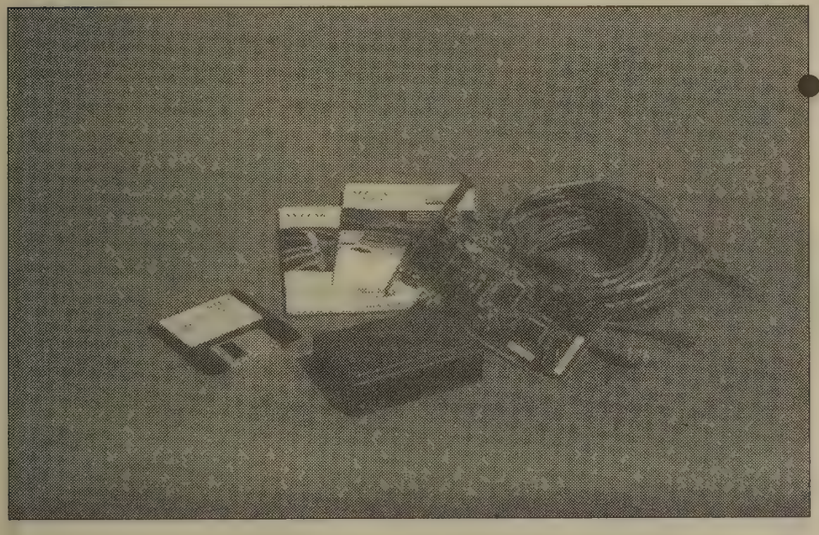


Networking Hardware

WebShuttle



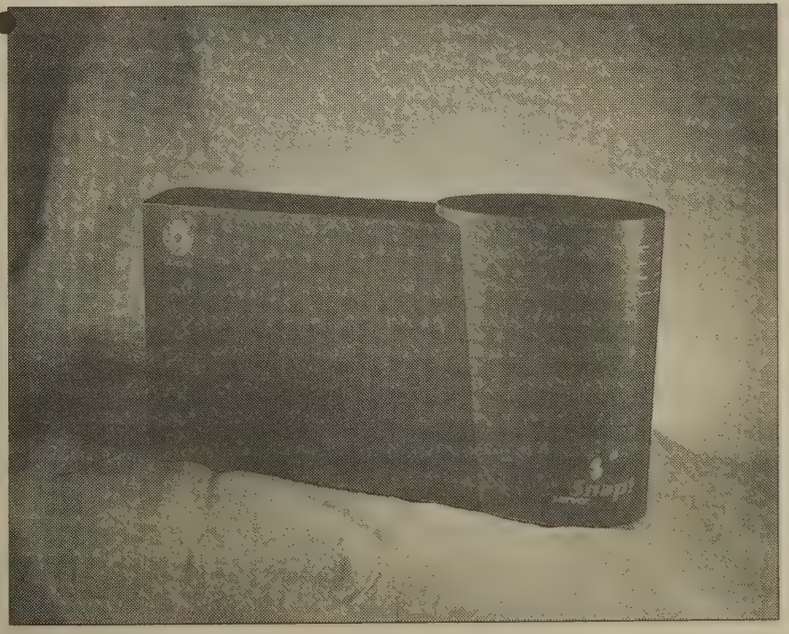
WebShuttle is an Internet sharing device for Ethernet networks that allows multiple users to simultaneously connect to the Internet over one phone line, with one external modem, using a single Internet account. It can support up to 50 users and will connect to any 10Base-T or 10Base-T Ethernet network—with no loss of speed. WebShuttle is simple to install and can be easily configured through its Web browser set-up screens. In addition, it has a built-in DHCP Server that assigns an IP address automatically to every network user. There is also built-in firewall protection and supervisor management features with password protected configuration settings to ensure network security. Operating system support includes Windows 3.1, 95, NT, and Windows 98. It is also compatible with other operating systems such as Mac OS and Solaris when connected to an Ethernet network. ($199) Addonics Technologies, 48434 Milmont Dr., Fremont, CA 94538. 1-800-787-8580. *www.addonics.com* .



D-Link 10/100MB Network Kit In A Box

The dual speed Ethernet Network starter kit is a plug-and-play, off-the-shelf solution for SOHO environments. It provides easy installation and configuration for Windows 95/98 as well as support for a wide variety of Network Operating Systems. The kit includes a 4-port 10/100MB switch selectable Ethernet Hub, two 32-bit bus mastering 10/100MB Ethernet adapter cards, driver software, two 20' UTP cables, one power adapter, two installation guides, and shareware versions of Blizzard Entertainment's WarCraft II and Diablo. ($159) D-Link, Inc., 53 Discovery, Irvine, CA 92618. 1-800-326-1688. *www.dlink.com* .

Snap! Server



The Snap! Server, a network-attached storage server, provides instant add-on storage to any Ethernet local area network. It was designed to address the growing needs of small- to medium sized networks to store email messages, word processing documents, and large files such as high resolution graphics and CAD files. Once plugged into the Ethernet port and the power outlet, Snap! Server requires only a flip of the power switch to be recognized by the network and provide additional storage to end users. It is preconfigured to run on popular LAN environments, such as Windows NT and Novell NetWare, and supports all major network protocols used on PC-based networks. Out of the box, the server supports automatic assignment of IP addresses using Dynamic Host Configuration Protocol software. The server also supports Windows Internet Name Service (WINS), enabling easy integration into all Microsoft network environments. Meridian Data offers a three-year replace-or-repair warranty. (Prices range from $995 for 4GB to $1,795 for 12GB of storage) Meridian Data, Inc., 5615 Scotts Valley Dr., Scotts Valley, CA 95066. 1-888-343-SNAP. *www.snapserver.com* .

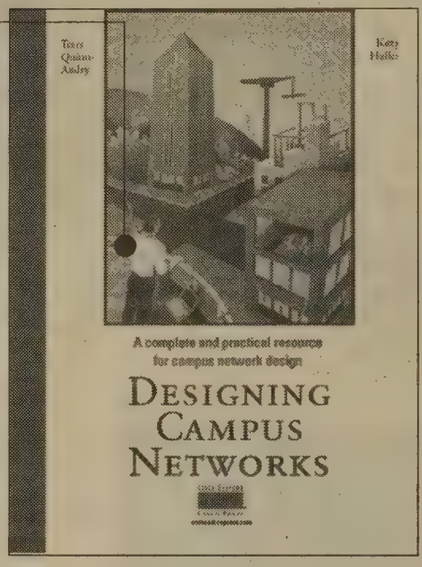
Product Reviews

Book Review

Designing Campus Networks

Published By: Cisco Press
List Price: $55
Review By: Matthew Leeds

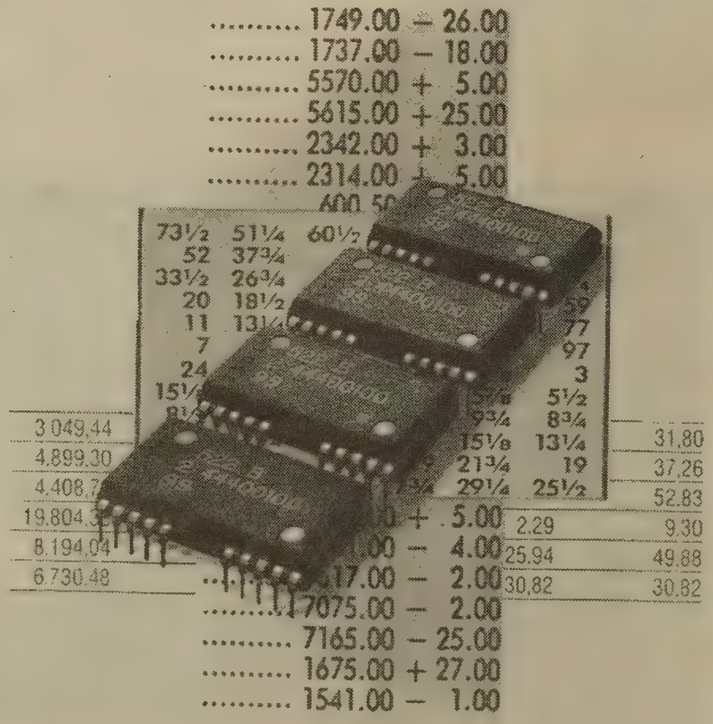
Network design is an art as well as a science. Designing large networks requires many skills, both in addressing the physical infrastructure needed to support cabling, wiring closets, equipment racks, power (including backup power systems), security, fire suppression, and in the technical aspects of network protocols and addressing, router and switch placement, server placement, and traffic design. Gaining an appreciation for the complexity that makes up a complete design, as well as being able to provide some level of meaningful input and/or oversight into the process is often a challenge for some management layers. *Designing Campus Networks* from Cisco Press provides a simple and limited (from the perspective of technical complexity) introduction to some of the technical issues in designing large networks.



This introduction is provided in three parts. The first discusses the types and patterns of network traffic that exist and why they must be managed. A little detail is provided at the technical level, sufficient to hint at the larger issues that lay behind this topic. The second part adds into the mix the issues of redundancy and security. The final part proposes three generic network designs of increasing complexity and scale.

A few comments, or cautions, with respect to this book. First, some elements of the discussion have a clear bent towards Cisco technology, in both the protocols discussed and the heavy use of routers (The definition of a Layer 3 switch in the book is suspect). Second, no guidance is provided on methodologies for measuring and monitoring traffic on a network, or for evaluating the potential load on a network. Nor is any real consideration given to infrastructure issues. You'll need more than this book to design a network, or to evaluate someone else's.

Upgrading Your Computer?



Computer shopping is easy with the *MicroTimes* Quotation Hotline—the Free, Easy and Convenient way to receive quotes for your personal computer shopping needs. You will receive price information by mail, fax, phone, or e-mail directly from our advertisers on the exact computer products you're interested in, including upgrades, peripherals, notebooks, multimedia, or any type of system configuration.

See page 53 for the Quotation Hotline form, or visit our Web site at www.microtimes.com

MICROTIMES
www.microtimes.com
(510) 768-1200

WHY BUY FROM ANYONE ELSE...WHEN YOU CAN BUY FROM THE BEST—
UNIVERSAL COMPUTER PRODUCTS

FREE mouse pad with mouse purchase

1-YEAR PARTS/ 1-YEAR LABOR WARRANTY ON ALL SYSTEMS

Pentium® II Processor and PCI System w/512K Cache

- 32MB SDRAM
- Teac 1.44MB 3.5" Floppy Drive
- 4.3GB IDE Hard Drive
- 2 Serial, 1 Parallel
- 17" SVGA Monitor .28dp NI
- PCI VGA Card w/2MB
- ATX Medium Tower Case
- 104 Enhanced Keyboard
- Windows 95
- Microsoft PS2 Mouse w/Pad
- 24X CD-ROM Drive
- 16-Bit Sound & Speakers
- Supra 56K Int. Fax Modem

intel inside

233MMX $1385
266MMX $1445
300MMX $1575
333MMX $1750
350MMX $1850
400MMX $2085

Pentium® Processor and PCI System w/512K Cache

- 32MB EDO RAM
- Teac 1.44MB 3.5" Floppy Drive
- 2.5GB IDE Hard Drive
- 2 Serial, 1 Parallel
- 14" SVGA Monitor .28dp NI
- PCI VGA Card w/1MB
- Medium Tower Case
- 104 Enhanced Keyboard
- Windows 95
- Serial Mouse w/Pad
- 24X CD-ROM Drive
- 16-Bit Sound Card
- Stereo Speakers
- Supra 56K Int. Fax Modem

intel inside

133MHz $965
166MMX $985
200MMX.....$995
233MMX $1030

REPAIR & UPGRADE SERVICES

ON IBM & IBM COMPATIBLES

- FULL SERVICE
- NO APPOINTMENT NECESSARY
- SAME DAY TURNAROUND
- COMPETITIVE RATES
- EXPERIENCED TECHNICIAN FOR OVER 10 YEARS
- COURTEOUS SERVICE

ADD-ON BOARDS

Parallel Port	$29
NCL 538 Controller	$50
NCL 539 Controller	$50
Matrox Millennium II w/4MB	$195
Matrox Mystique 220 w/4MB	$159
Trident PCI VGA Card w/1MB	$35
Diamond Stealth 3D PCI VGA Card w/2MB	$75
Diamond Stealth PCI VGA w/2MB VRAM	$99
Adaptec 2940U PCI SCSI Controller	$175
Adaptec 3940U PCI SCSI Controller	$Call
SMC 8432T PCI Network Card	$85
SMC 8432BT Combo PCI Network Card	$99
SMC 10/100 9332BDT PCI Network Card	$99
Intel Pro/100 PILA8465B PCI Network Card	$79
3Com 3C905TX PCI Network Card	$79
3Com 3C900 Combo PCI Network Card	$99
3Com 590CB ISA Network Card	$60
NE2000 ISA Network Card	$35
NE2000 PCI Network Card	$39
Toner KX-P450	$39.95
Toner KX-P453	$38.95
Toner KX-P451	$39.95

CASES AND POWER SUPPLY

Desktop Case w/250W Power Supply	$65
Mini-Tower Case w/250W Power Supply	$65
Med-Tower Case w/250W Power Supply	$75
Full-Tower Case w/250W Power Supply	$110
ATX Case Med-Tower Case w/230W Power Supply	$95
ATX Case Full-Tower Case w/230W Power Supply	$119
250W UL Power Supply (ATX)	$45
300W UL Power Supply (ATX)	$69
230W Tower Power Supply	$69

MODEMS

Sportster 56K Int. Fax Modem	$105
Sportster 56K Ext. Fax Modem	$159
Sportster 56K V.90 Int. Fax Modem	$155
Sportster 56K V.90 Ext. Fax Modem	$175
Diamond Supra 56K Int. Fax/Modem	$85
Diamond Supra 56K Ext. Fax/Modem	$149
Diamond Supra 56K V.90 Int. Fax/Modem	$75

CD-ROMS

32X CD-ROM Drive	$95
24X CD-ROM Drive	$75
Creative Labs 16-Bit Sound Card	$55
Creative Labs PCI 64	$99
Creative Labs AW64 Value	$99
Creative Labs AW 64 Gold	$189
ESS 16-Bit PnP Sound Card	$39
Stereo Speakers	$20
Midi Kit	$49

KEYBOARDS

Chicony KB5981 104 Click Keyboard	$33
Chicony Ergonomic 104 Keyboard	$49
Keytronic PS2 104 Keyboard	$33
Focus 2001 104 Click Keyboard	$35
Touch Pad 104 Keyboard	$69
Microsoft Natural Keyboard	$55

MEMORY CHIPS & COOLING FAN

30-Pin SIMM

4MBx9-7	$CALL
1MBx9-7/8	$CALL
1MBx3-7/8	$CALL

72-Pin SIMM

Non EDO 1x32 / 2x32 / 4x32 / 8x32	$CALL
EDO 1x32 / 2x32 / 4x32 / 8x32	$CALL
SDRAM (168-Pin DIMM)	
4x64 / 8x64 / 16x64	$CALL

CPU Cooling Fan

486 Ball Bearing Cooling Fan	$6
586 Ball Bearing Cooling Fan	$8

MONITORS

NEC 15/17" SVGA Monitor	$Call
14" SVGA Monitor 1024x768 .28dp NI	$175
15" SVGA Monitor 1280x1024 .28dp NI	$225
17" SVGA Monitor 1280x1024 .28dp NI	$Call

MOTHERBOARDS

Pentium® II 233 MMX / 266 MMX	$Call
133MHz Pentium® PCI MB w/512K Cache	$Call
166MMX Pentium® PCI MB w/512K Cache	$Call
200MMX Pentium® PCI MB w/512K Cache	$Call
233MMX Pentium® PCI MB w/512K Cache	$Call

HARD DRIVES

FUJITSU

MPB3021 2.1GB UDMA	$155
MPB3026 2.6GB UDMA	$185
MPB3032 3.2GB UDMA	$189
MPB3035 3.5GB UDMA	$199
MPB3021 4.3GB UDMA	$199
MPB3052 5.2GB UDMA	$219
MPB3064 6.4GB UDMA	$249

WESTERN DIGITAL

AC12100 2.1GB UDMA	$179
AC34300 4.3GB UDMA	$199
AC36400 6.4GB UDMA	$265

MAXTOR

MR84320 4.3GB UDMA	$185
MR85250 5.2GB UDMA	$235
MR86400 6.4GB UDMA	$279
MR87000 7.0GB UDMA	$309
MR88400 8.4GB UDMA	$325

TAPE BACKUPS

HP Colorado T3000 3.2GB Int.	$175
Seagate STT23200F-R 3.2GB Int.	$159
Seagate STT63200P-R 3.2GB Ext.	$195
Seagate TST8000R-ABET DDS 8GB Int.	$309
Seagate TST8000R-SBET DDS 8GB Ext.	$359

MICE

Trackball	$89
Logitech Serial Mouseman	$49.95
Microsoft Bus Mouse	$89
Microsoft Serial Mouse	$69
DEXXA Mouse	$18
Mouse Systems A3 Mouse for Mac	$50
Mouse Systems A3 Trackball for Mac	$50

PRINTER RIBBONS & DATA CARTRIDGES ARE AVAILABLE
COAX & TWISTED CABLES ARE AVAILABLE

UNIVERSAL COMPUTER PRODUCTS

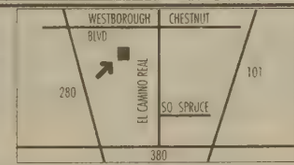
951 El Camino Real, South San Francisco, CA 94080

(650) 583-9736 Fax (650) 583-3457

Mon-Fri: 9am-6pm Sat: 10am-5pm

Prices subject to change w/o notice • Not responsible for misprints
Pentium is a registered trademark of Intel Corporation.

VISA MasterCard DISCOVER

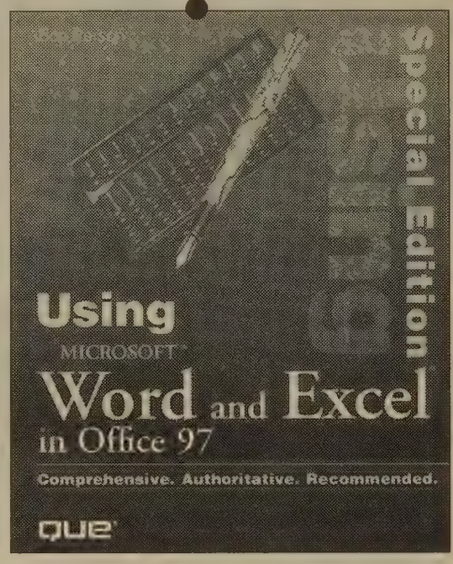


(Inside Fairway Plaza)

Using Microsoft Word and Excel in Office 97, Second Edition

Published By: Que
List Price: $39.99
Review By: Matthew Leeds

There is an enormous market in books that tell you how to get more out of a software program than you can manage to with just the documentation that comes in the original box. This has occurred as software publishers move from printed documentation to the euphemistic "on-line help", since that is often so abridged that it only hints at the method for achieving the result you're looking for. Additionally, in most business settings, the company you work for (if they care about saving money) will have obtained a bulk license of one type or another, and you'll never see an original manual.



Que has a good line of books that target various levels of expertise across all of Microsoft's product line. This particular book is aimed at the intermediate and moderately advanced user of the latest version of Word and Excel contained in Office 97. It weighs in at over 1,200 pages, and suffers from some of the usual problems found in books of that size. You can't get the book to lay flat unless you're in the middle of the book, or you bring weights home from the gym. Given the how-to nature of much of the material in the book, I've never understood why publishers scrimp on the binding and don't design books to lay flat regardless of your place within them.

With respect to the contents, I was able to find guidance on just about any subject I could reasonably come up with. I'm sure that if you've hit a wall in using Word or Excel that this book could provide assistance. A quick trip to the bookstore reveals a bookshelf with several feet of books in the same category. I've no idea if this book is better or worse than the rest. It certainly meets my needs, and I expect it would do the same for you. (Que, a division of Macmillan Publishing, 201 W. 103rd St., Indianapolis, IN 84290. *www.mpc.com* .

Windows Software Review

Zydeco for Quicken and TurboTax v 4.1.1

Published By: Zydeco Software
List Price: $29.95
Review By: David A. Simon, CPA

Zydeco is a document scanning and retrieval system for use with Intuit's Quicken and TurboTax for Windows. With Zydeco, you scan paper documents, such as invoices and receipts, and then link the scanned image to your Quicken or TurboTax data entry screens.

Once a document has been scanned, a link icon is created. By clicking on the icon, documents can be accessed quickly, and annotated with electronic "sticky notes."

The software is designed to assist Quicken and TurboTax users to organize and retain their tax records electronically. For example, you can scan

Your Bar Code Automation Solution Specialist

Since 1984 Variant Microsystems has been the leader in bar code decoders, scanners, and data collection solutions. We offer top expert consultation, installation, service and support on all systems. Our product line includes hand-held, fixed-mount scanners, bar code printers, RF systems,

FREE TECHNICAL SUPPORT!
Dealer, VAR, and Corporate Inquiries Welcome

70-16171-01

CCD SCANNERS
We carry major manufacturers including:
Opticon
Welch Allyn • Unitech
VM5125 List $395
$149

LASER SCANNERS
Our solutions include, hand held, fixed mount, raster by:
Symbol • PSC
Percon • Welch Allyn
Metrologic • Microscan

BAR CODE PRINTING SOFTWARE
Powerful, easy-to use Windows software. Design & print bard code labels, Windows 95 & NT compatible. Prints on all thermal laser, and dot matrix printers. Any Label, user friendly Windows based bar code printing software,

PORTABLE DATA COLLECTIORS
$395
Collect data remotely and upload into your PC. Well suited for inventory-control warehouse application, etc. Use with a built-in laser scanner, or CCD or wand. Works with Windows software. We provide soutions from:
Symbol • Percon • Unitech - PT-815 LIST $719

PRINTER SUPPLIES
Labels (Paper, Kimdura, Polyester, Kapton) & Ribbons for Various Applications.

PRINTER BAR CODE LABELS
Thermal, Transfer, Direct, Thermal Solutions from:
$1595
Zebra • Datamax
Eltron • C. Itoh • Comtec
T4 List $1995

Variant microsystems

800-827-4268
Phone: 510-440-2870
Fax: 510-440-2873
e-mail: sales@variantusa.com
Visit our Web Site:
www.variantusa.com
46520 Fremont Blvd. Suite 614, Fremont, CA 94538
Prices subject to change without notice. Not responsible for typographical errors.

your charge card slip from a business lunch, and then link image to your "meals and entertainment" account. Then, you can attach an electronic sticky note to the image describing who you had the lunch with, and the business purpose of the lunch.

The program also takes advantage of a new IRS procedures (Rev. Proc. 98-25), which offers guidance on the requirements for keeping electronic tax records. The procedure describes the requirements for keeping electronic documents, and requires taxpayers to retain the records, for as "long as their contents may become material to the administration of the internal revenue laws." Of course, electronic records are much less bulky, and more convenient to store than hard copy.

Zydeco additionally allows the user to send linked documents as faxes or via email. The program is simple to use and intuitive, consistent with its intended customer—Quicken users with their personal tax records. It will also work with QuickBooks, Intuit's low-end accounting package for small businesses. (Zydeco Software, 1600 Canal St., 14th Fl., New Orleans, LA 70112. 504/539-9300. *www.itssoftware.com*)

Monitor Review

CyberVision C70 Monitor

Manufactured By: CyberVision
List Price: $399 (suggested street price: $349)
Review By: Mary Eisenhart

CyberVision bills the 17" multiscan C70 as "the ultimate high performance monitor for advanced business and SOHO users." Within this niche, it offers excellent value.

While it's marketed primarily to the system integrator for Windows PCs, I've been using the monitor on Macs, both an ancient Quadra and a middle-aged PowerMac 7200, using the adapter CyberVision supplies on request. It supports resolutions up to 1280 x 1024 on the Wintel platforms; on the Mac, 1024 x 768 is the maximum available resolution.

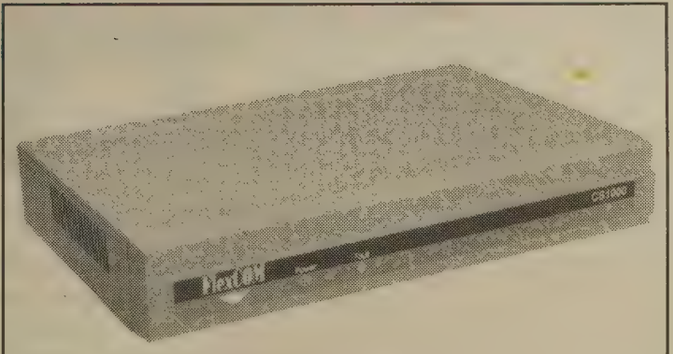
At 640 x 480, the monitor produces razor-sharp images and is easy on the eyes for a full day's work of word processing, spreadsheets, email, net-surfing, etc. A particular boon with this monitor is its flat screen with anti-glare surface—when we moved to our new office with its lovely sunny windows, the inescapable reflections on the screens made the daily work load a physical struggle. The C70 blessedly fails to reflect the brightest sunlight and provides a remarkably paper-like surface. In addition, it generates sufficient brightness to be usable in a sunny room.

At 1024 x 768 the onscreen image is just slightly fuzzy on the PowerMac. For this reason, I wouldn't recommend it to a graphic artist, but neither does CyberVision. (There are no user-configurable focus controls to address this problem, though other controls—horizontal, vertical, contrast, brightness, trapezoid, pincushion, etc.—are easily adjusted from a pop-up menu activated by buttons conveniently located at the front of the monitor.)

The C70 is EPA Energy Star compliant and Plug and Play compatible on the Windows 95 platform (It's easy to set up on the Mac, too, with clear instructions for appropriate DIP switch settings on the adapter). It comes with a 3-year parts/2-year labor warranty and is backed by CyberVision's 48-hour Priority Replacement program. (CyberVision, 438 Cheryl Ln., Walnut, CA 91789. 909/869-7790, *www.cybervisiondisplays.com*) ◆

NEW PRODUCT ROLLOUT
Flex COM INTERNET SERVER

* **Great** for small office / home office
* Internet Access for Multiple LAN Users
* **Quick** and Easy Installation... Fully compatible w/all PC's using any browser
* **Easy** to Upgrade
* **Flexible** Modem Support...supports all high performance PC modems
* Dial on Demand...automatically establish a connection to your ISP



800-68-CeLAN
(23526)
www.celan.com

The Flex COM Internet Server is an efficient low cost solution for the Small Office / Home Office networks.

FOR THE MOST CURRENT UP TO DATE PRICING CALL:

CeLAN TECHNOLOGY, INC.
2323 Calle Del Mundo • Santa Clara, CA 95054
Tel: 408-988-8288 • Fax: 408-988-8289

Gulch Gossip

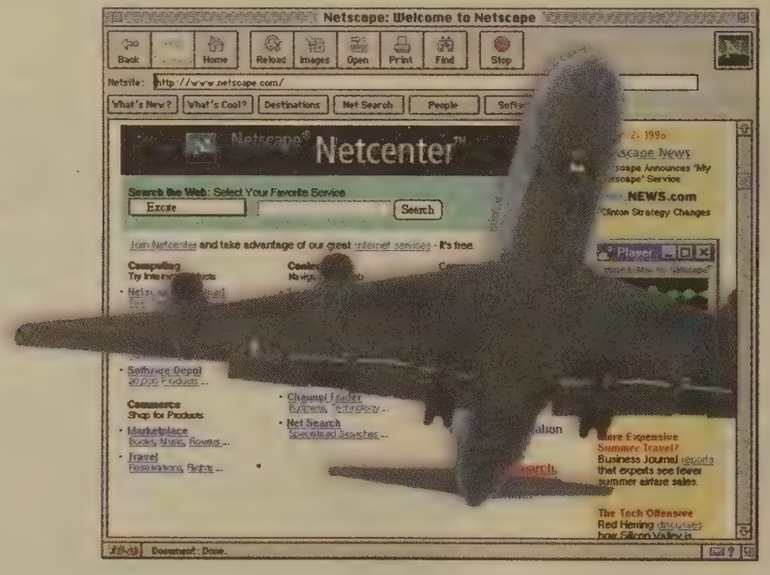
By Jonathan E.

Would anybody complain if another operating system, say, Macintosh, were to integrate a browser? No! We'd all be happy, even ecstatic, about it.

Where Did You Want To Go When?

United Airlines no longer exhorts us to fly the friendly skies, simply admitting instead that flying can never be as good as a commercial makes it out to be. Who am I to argue?

However, I was quite astounded by the advertisement—well, it was actually labeled "An Exclusive Offer For United Customers Only!"—for **Netscape Navigator** or **Communicator** (it seemed to be confused about what it was called) delivered on a scrap of paper along with my meal on a recent flight. Now, I know that things are not going as well for Netscape as originally hoped. But are things so bad that it's thought necessary to deliver a pitch accompanied by a disposable napkin, those awkward little utensils, and that peculiar fodder that probably inspired **Soylent Green**? Not the placement I'd want for my purported plucky little slayer of



the mighty **Microsoft**. Frankly, it makes Netscape look desperate, rather than brave like David facing Goliath.

And, while we're at it, perhaps Netscape *is* desperate, now that it's persuaded everyone to beat up so bad on Microsoft for the wrong reasons. I'm no fan of either Microsoft's software (because I use it sometimes) or its business practices (big, ugly, and threatening), but as **Dave Winer** pointed out in a recent **DaveNet**, sandwiched somewhere in between his usual endless handwringing over arcane programming and business issues and an emailed dance lesson, **Marc Andreessen**, full of fresh-kid-on-the-block swagger, openly discussed, perhaps even boasted of, Netscape's ability to produce an operating system. Check *www8.zdnet.com/pcweek/news/0617/17netsc.html* for the original *PC Week* story.

Hence, as Winer posits on his site at *www.scripting.com/davenet/98/05/netscapesInternetOS.html*, "Netscape was extending their product into Microsoft's space, and it seems that Microsoft could defend their product without breaking the law." Check Scripting News at *www.scripting.com/* for more of Winer's take on the imbroglio of our age, and way more links to other pundits blathering on about it.

So, beyond little Netscape's embarrassing reversal of fortune and face, what's the real problem with a browser integrated into an operating system? It should be a big improvement, avoiding many of the incompatibilities and problems we now have to futz with every time we browse around. Would anybody complain if another operating system, say, Macintosh, were to integrate a browser? No! We'd all be happy, even ecstatic, about it.

There are plenty of reasons to take Microsoft down a notch or two, but Windows 98 bundled with Internet Explorer is not the right one. Read this month's article entitled, "Scene Stealing At The Digital Corral" on page 116 for a brief outline of what the real problems are with Microsoft extending its dominance into digital media. Whatever else **Bill Gates** and his gang are, they're undeniably cunning, even if they appear to have stumbled recently.

A stupidly conceived attack, one that's really just a ploy rather than an authentic offensive, and largely benefiting a company that has become pathetic enough to advertise itself through airline meals, is simply not going to work against the Redmond leviathan's wiliness.

Make Mine Multiple Mailings

I get far too many copies of notices for various industry exhibitions, seminars, conferences, and other events. Usually I get multiple copies over a period of a month or three, which I figure is just plain old marketing and, annoying as it is, I recognize its imperative. Frequently I get two, sometimes three, copies of the same piece at the same time, but since I have a couple of different aliases and even more job titles, I can, in my infinite understanding, let that go too as an explainable, if unfortunate, gap between the practical and the ideal—even in this data-driven age when we are

repeatedly told that smart computers with their abilities to sort and correlate vast amounts of information will save paper and trees.

However, even my well-developed laxity towards the occasional imperfections of the computer industry was stressed to the point of fracture by the recent simultaneous arrival at my domicile of three copies of the multi-page pitch for the **FileMaker Developer Conference**, all addressed to the same person. In a flash of revelation, I saw that even the simplest application of any merge-and-purge of street address and name fields should have whittled the number of pieces down to one.

Perhaps one wouldn't expect such a process from, say, a conference for those practicing an artistic field such as animation—but, this is a conference for those who manipulate data as their calling, a profession where there might even be some favorable differential attached to efficiency, where just getting it right might be expected to be a worthy goal. I was horrified by such sloppy practice and can only wonder what a conference with such disregard for the basic principles and uses of its flagship application has to offer its potential attendees.

Africa Fete '98—The Eno Effect

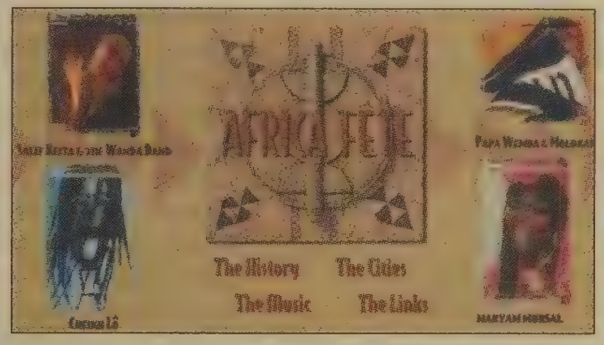
As **Brian Eno** so wisely observed to **Kevin Kelly** in ***Wired*** about three years ago, "The problem with computers is that there is not enough Africa in them." This year, the touring **Africa Fete** offers a truly fabulous line-up of African musicians at its stop in Saratoga, a great chance for all you Silicon Valley residents to catch a varied selection of some of the best artists from the continent, and then figure out how to get them into your computers.

Two of Africa's brightest new stars, **Maryam Mursal** and **Cheikh Lo**, are balanced by two veterans, **Papa Wemba** and **Salif Keita**, both with new bands.

Maryam Mursal is from Somalia, where she was a well-established singer before the civil war that lead to the American intervention. Desperate with the situation, she fled her country during the war, criss-crossing Kenya and Ethiopia with her five children for seven months to eventually arrive in Djibouti, where she was given asylum by the Danish embassy. In a refugee camp in Denmark, a Danish photographer and musician, **Soren Kjoer Jensen**, heard her singing to fellow refugees and recognized her voice from pre-war tapes that he'd heard. He brought her plight to the attention of **Peter Gabriel**'s **RealWorld Records,** and the eventual result was two albums.

The first was of traditional music with the group **Waaberi**, the core survivors of a pre-war performance troupe of 300 dancers, singers, musicians, and actors. The second is an astounding collaboration with primarily Danish musicians along with Waaberi, a mix of traditional Somalian sounds with European electronic beats. Given her experiences, the names of the albums, **New Dawn** and **The Journey**, are more than ordinarily significant.

In comparison, the stories of the other artists are mundane—but any African artist who manages to get his or her music out to the wider world has an interesting story. Cheikh Lo, from Senegal, worked on his first album, **ne la thiass** on World Circuit/Nonesuch, for years. Eventually **Youssou N'Dour**, the major Senegalese star, heard his songs and produced the album. The result is quietly spectacular and deeply meaningful, easily among the best of last year's releases.



Papa Wemba has been a major star on the Zairean scene since his days with **Zaiko Langa Langa** in the early '70s and was a leader in the sartorial fashion-parade extravaganza known as **les sapeurs**, **La Societe des Ambienceurs et des Personnes d'Elegance**, in the '80s. He's made a habit of releasing different albums for the African and international audiences; supposedly the African ones are rootsier, while the international ones are more exploratory and tailored for Western rock-influenced tastes. Personally, I think his African albums have a wider range of sounds than the international releases and are a little more exciting; ironically, they feel as though Wemba is stretched more as an artist rather than simply following a pattern. However, his newest album on RealWorld, **Molokai**, is perfectly respectable, very pleasant in fact, and a good introduction to him as he reprises some of his earlier songs.

Lastly, Salif Keita from Mali also combines the best of the modern west with the ancient sounds of the African sahel. His career also began in the '70s with two seminal bands, **Les Ambassadeurs** and the **Rail Band of Bamako**. His last American release, **Folon—The Past,** in 1995 on Mango, was a breathtaking tour-de-force of contemporary electronic beats married with the roots of rhythm. He's also done more ethereal and purely electronic work with **Steve Hillage** on the fascinating soundtrack, **L'Enfant Lion**. As a performer, when he's on, he's one of the truly great ones.

As well as the music, Africa Fete also includes a traveling African village, complete with food and crafts vendors so the African experience in Silicon Valley is fully 3D enhanced. Get away from your computers and go!

The local date is June 21 at the Paul Masson Historic Winery in Saratoga. Tickets are apparently $30, and there is a fairly uninformative (even wrong in one instance—how very African!) Web site at *www.africafete.com* for more info on the artists, and even a few sound clips. I suggest watching local ads for more up-to-date and accurate information. Those of you in the north-east Bay and Sacramento area may find Africa Fete's stop at the **Sierra Nevada World Music Festival** in Marysville on June 19 more convenient. Advance tickets for that Africa Fete date are only $22.50 in advance.

Other days (June 20 and 21) of that three-day festival include a killer line-up of reggae acts, including **Toots & The Maytals**, **Culture**, **Augustus Pablo**, **Junior Byles**, **Johnny Clarke**, **Linton Kwesi Johnson and the Dennis Bovell Dub Band**, and **Spearhead,** among others. Call the Festival hotline at (415)472-5550 for more info on this one.

Just get away from those computers and come back with some Africa to put in them! Make Brian Eno happy!

Gelman Protects His Own—We Are All Zapatistas

In a startling display of what had so far been only a rumoured ability of the Internet, the little guy being able to answer back to the big bad media giant, **Robert Gelman** stuck up a page partially responding to my review of his book, **Protecting Yourself Online**, in this column of our April 22 issue. If you really can't recall my brilliant critique of his work, you may read it at *www.microtimes.com/178/gossip.html* . If for some reason you find it necessary to find out how miffed he was, his response is at *www.verbum.com/journal/interactivism/episode01.html* .

Fair enough—I poked a little fun at the overall tenor of the book and in particular at his flamboyant assertion that "most people can" get on the Net, an assertion that I note he now withdraws in his response. But did he have to call me "notorious"?

What hurts this old anarchist's heart the most, however, is Gelman's accusation that my opinion that the Internet as frontier is not for everyone is "ranting [that] is just the kind of fodder that

ICONIX...Your ultimate computing solution for your business.
COMPUTER SALES • UPGRADES • SERVICE

PENTIUM® II POWER STATION
- Pentium® II Intel® 440LX M/B
- 32MB SDRAM
- 4.3GB Ultra DMA HD
- 1.44MB Sony FD
- AGP 3D Video w/4MB
- 24X CD-ROM Drive
- Yamaha 3D Sound Card
- Yamaha YST-M7 Speakers
- 65K Rockwell Fax/Modem
- Microsoft PS/2 Mouse
- Medium ATX Tower Case
- Win 95 104-Key PS/2 Keyboard
- MS Win 95 w/CD & Manual

Pentium® II 266MHz $1275
Pentium® II 300MHz $1425

OFFICE WORKSTATION
- ASUS TX97 Motherboard w/512K
- 32MB SDRAM
- 4.3GB WD Ultra DMA HD
- 1.44MB Sony FD
- ATI 3D Xpress w/4MB Video
- Toshiba 24X CD-ROM Drive
- Sound Blaster AWE 64 Value
- Yamaha YST-M7 Speakers
- USR 56K Fax/Modem Sportster
- Iomega 100MB Zip Drive w/Tape
- Microsoft Mouse & Win 95 Keyboard
- Deluxe Medium-Tower Case
- MS Win 95 w/CD & Manual

Pentium® 200 MMX.....$1250
Pentium® 233 MMX.....$1325

PERFORMANCE SYSTEM
- Intel® Pentium® 430TX M/B w/512K
- 32MB EDO 60ns Memory
- 2.5GB Ultra DMA HD
- 1.44MB Sony FD
- Diamond Stealth w/2MB Video
- 24X CD-ROM Drive
- Sound Blaster 3D Compatible on Board
- 120W Stereo Speakers
- 56K Rockwell Fax/Modem
- Internet NetMouse or Logitech
- Win 95 104-Key Keyboard
- Medium AT Tower Case
- MS Win 95 OSR-2 w/Manual

Pentium® 200 MMX.....$785
Pentium® 233 MMX.....$850

UPGRADE SPECIALS!!! Installation Included:
- Pentium® II 266MHz + Fan, Intel® AL440LX M/B.....$599
- Pentium® 200 MMX + Fan, Intel® TX M/B w/512K.....$255

HOURS: M-F 10AM-6PM SAT 10AM-2PM
ICONIX COMPUTERS
4767 Lafayette Street #102
Santa Clara, CA 95054

Tel: 408.986.8327
Fax: 408.986.8328
E-Mail: icon@hypersurf.com

SVS SILICON VALLEY SQUARE

Now Featuring
A Cyber Mall
at a PC Near You

www.siliconvalleysquare.com
SV2
THE BUSINESS INTERNET PEOPLE
* Web Design
* Web Development
* Internet Consultation
586 N. First St., Suite 216 - San Jose, CA 95112
(408) 278-9087 - (fax) 408-292-8263

FREE
On-Site Network Consultations!
Limited time offer. Must mention this coupon when setting up appointment. Expires 7-1-98

CORPORATE PROVEN SYSTEM-SERVICES
Proven One-Year On-Site or Phone Support Contract Includes:
* Upgrade & Installation Hardware/Software
* Maintenance & Support: PC, LAN, Server, Windows, DOS
* Relocate Computer & Equipment
* Troubleshoot Computer & Application Errors
* Backup / Restore
* LAN / WAN Networking
* E-Mail Setup
* Internet Connectivities
* Systems / Server Administration

PLEASE TURN TO OUR FULL-PAGE AD ON PAGE 27

ONLY $35/MONTH
(Some restrictions apply, part # EWT-001-S)

KEEP UP WITH THE LATEST TECHNOLOGY WITH
PROVEN TECHNOLOGY
1-800-PTI-2WAN
(794-2926)

makes Senators and other despots think they can win popularity points by protecting us from ourselves in this wild and wooly frontier."

Hurt feelings aside, my primary point was that the Internet is a lot of bother for just another shopping opportunity, which in this land of the free is how it's becoming increasingly hyped by the computer industry and mainstream media. Gelman makes the good point that you'll get the online experience you look for—and, frankly, the experience a lot of people are looking for is a shopping experience.

Funnily enough, Gelman and I substantially agree on most issues; we just approach them from opposite directions and perhaps don't quite get to the mind-melding mid-point. As he points out, what passes for culture at this end of the twentieth century is a pretty sorry state of affairs, and the CRT, both as TV and computer screen, has a lot to do with it.

While he sees plenty of room for online activism tackling any number of political and social issues, he also suggests getting away from the screen and doing something helpful in the real world. In some quarters of Silicon Valley, this is probably a radical idea, but one that belongs to the future rather than the past, contrary to what some may assume. Gelman provides a few links to get you started.

For another take on activism online, and internationally at that, read **Jeanne Carstensen**'s **SF Gate** piece concerning a recent online "virtual sit-in" directed against Mexican **President Zedillo**'s Web site in protest of the Mexican government's continuing repression of the **Zapatistas** in Chiapas. You'll find it at *www.sfgate.com/cgi-bin/article.cgi?file=/technology/archive/1998/05/20/zapatista.dtl* . As always, the issues are not entirely simple, and Carstensen draws notice to the various problems, as well as the opportunities involved with using computer media to pursue real-world goals. She concludes by wondering whether online activism can ever have the impact of real world activism, but suggests that "in our increasingly virtual world, electronic civil disobedience is a timely tactic."

Stolder Settles Seattle

Steve Stolder, once editor of our once-upon-a-time sister magazine, ***BAM***, has moved to Seattle to work with **Amazon.com**. The book-selling pioneer of the online retailing jungle is heading into the slightly more crowded area of selling music online and made him the proverbial offer he couldn't refuse.

Since his time with *BAM*, Stolder has written freelance on a variety of musical subjects, including a simultaneously hilarious and depressing account of his research roadie project—let's just say that he's more suited to writing about performers than helping them actually get on and off stage along with their instruments. He also did a stint helping set up the then-ballooning **Excite** Web site's musical offerings.

Reportedly, Amazon plans to sell both all available American-released CDs, much as its book division does with ink and paper, and a substantial range of those tasty imports that the real music addicts amongst us slobber over. While the marketing side intends to sell everything, the editorial side aims to assess everything and provide some reliable guidance to the more noteworthy titles. Now, that's a valuable service when it comes to those expensive imports!

Stolder is the editorial guide to the rock and folk genres, but, as in the early hectic stages of so many ventures, is also starting off as a bit of a jack of all trades. The date of Amazon's music launch is still under wraps, but they're not sitting around picnicking in the woods; even on Memorial Day the man phoned me from the office to discuss some reviews of musical goods that I might be able to supply from my own immense storehouse of musical knowledge.◆

Copyright © 1998 by Jonathan E. All rights reserved.

DEC's Bytes Of Art

InterNetworked Digital Experiences

By Tony Reveaux

Bytes of Art was a decentralized installation that required the audience to travel from site to site for the full experience.

The Internet has connected people, resources, and experiences like nothing before, as digital information of all kinds can be transmuted and transmitted over it with democratic transparency. Art and entertainment are only beginning to find the forms and structures here for reaching new audiences through new media.

Bytes of Art was a recent collaboration achieved between an artist and a business. It explored and manifested a unique rich congruity of the Internet as community, articulating the primal modes of digital art and open public access. Three walk-in "cell" interconnected installations in different locations in the San Francisco Bay Area provided a celebratory, interactive facility for networked multimedia.

In San Jose, in the columned sound cell, visitors selected a music category or artist and changed tempo, volume, flange, and reverberation with their own heartbeat via a heart monitor, and by walking on floor sensors. In Oakland, the visual cell allowed visitors to manipulate live camera input and images of artists' photos and designs to colorize, posterize and flip them, all by activating the sensors. In San Francisco, the richly decorated literature cell spoke to the "pace" of the Victorian age; visitors changed the story with fonts and the shading and kerning of words by stepping on any or all of the nine sensors.

Walk-in "cells" located in three Bay Area cities, provide an interactive facility for the networked multimedia "Bytes of Art."

On the Bytes of Art Web site, you can find QuickTime movies showing the active interactions available for each of the cells.

The cells were networked over the phone lines. Activating floor sensors in one cell in one city changed the order of the sensors in the other cells. Between 9 and 27 variations per cell were possible. Each cell was powered by a Digital Personal Workstation 600au with 4GB of disk space, a 24-plane PowerStorm graphics card, and Digital UNIX. WRL researchers wrote special application software to power online interaction for the entire exhibit. The cells were assembled with off-the-shelf electronic and mechanical components.

Artist-In-Residence-In-Cyberspace

As Digital Equipment Corporation's first Artist-in-Residence, Barbara Lee comes heavily credentialed as a veteran multimedian. With degrees from the California College of Arts & Crafts (Highest Distinction Film/Video/Performance B.F.A.) and Platt College (Honor Graduate Graphic Design & Desktop Publishing), she has mastered most of the tools of digital design and has presented several intermedia and Internet creations. Lee designed and fabricated all three cells.

Project leader Annie Warren has been with Digital's Western Research Lab since 1992. "I wanted to build an interface that moved away from keyboards, mice, and windows—an interface that could be built into the environment, not the desktop." Her special interest is in user interfaces within intelligent rooms—"This

simultaneous interaction among people, virtual people and the interconnected cells will be used by Digital to research ways in which people will interact with computers in the future."

Talking Digital

The Bytes of Art project started with the team going to the Internet, both because it was a medium of visibility and communication, and to cast the largest net possible for concepts, ideas, and talent.

Digital hired a temp to search the Internet, state-by-state, for all online arts organizations, arts publications, art event listings, and University art departments. After looking at the URLs, they sent each site a "Call For Entry" notice.

Explains Lee: "In each notice I briefly explained the project to the Web site administrator and included an HTML DOC and GIF for posting the 'call notice' to their Web site. The administrator would edit our doc to meet their needs and email me when their link was created so we could create a mutual link to them."

Of the 1500 notices sent out, 10%, or approximately 150 responses, were received. The responses were divided into three categories: completely confused, intrigued, and totally supportive. Two people thought the "Call for Entries" was some sort of spam.

The Internet participation gained momentum after Lee's appearance on the Art & Technology Online Interview in December 1997. Approximately 15 of the 60 selected online artists found the project from the A & T interview LINK. "Some organizations became more involved than others did," says Lee, "and we became a community working together to promote the Bytes of Art project."

The jury consisted of Lee, as the artist, and a Digital systems administrator. First, the submission had to function without error messages. Second, it needed to be compatible with Digital's Western Research Lab (WRL) software interface. (For example, HTML, HyperCard, and Javascript were not compatible.) Third, it needed to be artistically interesting, either on its own merits or from within the cell of that discipline.

"By allowing for expectations experienced in past projects," Lee continues, "I began to control the aesthetics of this one. I feel this control flattens difference in the collaborations, as well as the medium. I prefer to heighten difference between artworks while maintaining a cohesive spatial envelope so I deliberately had no expectations. I must say that I was very pleased with the final results from the online submissions."

The Bytes of Art team had to give up the live Net-cast of visitors performing at each gallery. Legally it would have required the curators to collect a signed waiver from each participant prior to entering a cell, so it simply wasn't practical.

Collaborating with Digital's team of technicians at WRL, they contributed several innovations to Lee's initial concept. "First," she says, "WRL allowed me to explore the concept of the Internet as archive over time. In the 'Call for Entries' process from November 1997 through March 1998, artists were encouraged to submit as many artworks as they desired, because storage wasn't a problem. Submissions varied per artist from 1 to 148. The average sound file submission was 15 minutes in duration.

"Second, WRL created the UNIX software for my sensor interface concept, which connects the events in each cell and the events happening between cells via the network."

MAX software for Macintosh computers is the only product on the market that partially enables sensor interface events, but it is limited to sound and light manipulations. MAX could not be used to direct the Visual cell image interface or Literature cell text manipulations, while the UNIX software WRL created can run on various platforms.

As in every ground-breaking endeavor, there are always some tropes and events that the creators would have liked to see implemented in the installations, but had to forgo because of cost, complexity or operational reliability. The Bytes of Art team had to give up some of the Internet interactivity they had initially envisioned, mainly the live Net-cast of visitors performing at each gallery. Legally it would have required the curators to collect a signed waiver from each participant prior to entering a cell, so it simply wasn't practical.

Interactive Sites and Sounds

"The site selection process was first influenced by geographical location," says Lee. "I wanted the gallery audience to reenact the data gathering ritual inherent to the Internet. When you do a 'search' on 'cats' from an Internet search engine like Digital's AltaVista Web site, you might receive a list of 35,012,874 Web sites for your review, but in actuality you'll probably only visit three or four.

"Bytes of Art was a decentralized installation that required the audience to travel from site to site for the full experience. The second influence was the site in relation to Internet technology and contemporary online art."

Hosting the Sound cell, the ART TECH: Silicon Valley Institute of Art & Technology in San Jose positions itself as a Tech-Mecca for Bay Area Artists creating tech-artworks. For the Literature cell, the Vorpal Gallery in San Francisco is a 34-year-old traditional fine art commercial gallery with a modest Internet site and no online art. The Visual cell was installed at the Center for the Visual Arts (CVA), a community gallery in Oakland where local emerging artists can exhibit their artwork and which has no Internet site.

"In terms of performances, some visitor reactions exceeded my expectations, but those have been by children. Most kids eagerly embrace discovery and they lack the self-consciousness of the adults. Their performances often push the envelope and I find that very exciting.

"Some visitors do understand what the cells

were all about, and some don't. Most visitors don't think understanding the art is as important as experiencing it. I tend to agree. Ultimately you either have resonance with a piece of art or you don't." But she wouldn't change any of the interface parameters in form and function now that the show has been up.

Asked what would be her next "dream" project that would explore art and technology as Bytes of Art did, Lee replies: "The process of my work breaks the technology out of the traditional mouse-keyboard-monitor paradigm via the creation of faux architectures. My residency with Digital has allowed me to connect the faux architectures. My next dream project will allow me to access commercial real estate. I'm ready to embed Internet technologies directly into the primary box (from which we live and work) to form disorienting spatial connections."

Plumbing The Internet

Whether your job is pushing data through pipes, or you are a user who feels like you are being flushed down another kind of pipe, Peter Rybaczyk's *Internet Plumbing Handbook* (Novell-IDG, $34.99) will illuminate your online pathways. Through comprehensive and detailed overviews, clear explanations and cogent diagrams and illustrations, this handbook will help you unplug your pings and Roto-Rooter your routers. It is designed to identify components, protocols and connections, describe their characteristics, and offer suggestions for trouble-shooting and solving problems.

We all use search engines on the Internet, usually with little more thought than as when we dial a phone, just scratching the surface of a powerful information tool. Digital's AltaVista, with access to the largest Web index in the world, and with more than 100 million pages, is one of the most preferred and referred-to engines on the Net. *The AltaVista Search Revolution*, Second Edition (Osborne/ McGraw-Hill, $24.99) by Eric and Deborah Ray provides complete coverage of AltaVista's new content, tools, and services. It can be well worth your time to go through their step-by-step search examples and peruse their tips to get where you're going faster and better. ◆

Copyright © 1998 by Tony Reveaux. All rights reserved.

Resources:

Digital Equipment Corporation
Western Research Laboratory
250 University Ave., Palo Alto, CA 94301
http://bytes-of-art.research.digital.com
www.digital.com

ART-TECH
89 South First St., San Jose, CA 95113
(408)971-9100
www.art-tech.org

Center for Visual Art
713 Washington St., Oakland, CA 94607
(510)451-6300

Vorpal Gallery
393 Grove St., San Francisco, CA 94102
(425)397-9200
www.sfstation.com/galleries/vorpal.htm

IDG Books Worldwide, Inc.
919 E. Hillsdale Blvd., Ste. 400
Foster City, CA 94404-2112
www.idgbooks.com

Osborne/McGraw-Hill
2600 Tenth St., 6th Flr. , Berkeley, CA 94710
(510)549-6614

continued from apge 92

You can simplify your life by having your internal cables terminated with Granite's active terminators too. No matter what the drive configuration is, or how it changes, you can leave all drives (or enclosures) always unterminated (either by default, or you can get drives lacking the termination feature altogether), as the cables will take care of it.

Comments And Recommendations

Since the system in Listing 1 was assembled, it has generally functioned without problems. There was a puzzling quirk at start time: Frequently the system would come on, but the monitor would show an error indicating no signal coming from the video card. Strangely, at that point the Power button would not shut the system down and the power cord had to be unplugged. It would then boot properly on restart.

Since in ATX systems power is controlled via the system board, several potential causes were suggested: The board itself, the power supply, faulty memory, or some incompatibility between it and the system board (which, as I explained in a previous article, is not uncommon with SDRAM).

When the Motherboard Monitor utility showed strange voltage values, suspicion fell on the power supply, but the manufacturer—US Power—questioned this diagnosis, claiming that if the discrepancies were real (see above), there would be a much more serious malfunction; indeed, when CalPC replaced the power supply, the problem persisted.

The problem may have been caused by looseness of the SDRAM module in its slot. It has not reoccurred since reinserting it. Lesson: Systems have become very sensitive to any small quirk; potential sources of problems have increased considerably, and have become more difficult to diagnose, so be prepared for them.

For a drive configuration such as the one recommended, put a 10,000RPM drive in a cooling enclosure. If removability is desired, put a 7,200RPM drive in a Data Port, and removable drives in a Kingston DE-150.

Note that the cable specifications were revised for the dual controller and to add termination to the internal ones.

(I would like to thank Carl Hehn from CalPC, Tom O'Neill from Granite, Steven Lu from CRU, and Andrew Rosas from US Power for their cooperation and help with this article). ◆

Copyright © 1998 by Fabian Pascal. All rights reserved.

Resources:

32-bit Computing Page
www.microtimes.com/32bitres.html

Tom's Hardware Guide
http://sysdoc.pair.com

The Heatsink Guide
www.isjm.com/tst/heatsink

MotherBoard Monitor (freeware)
Alex van Kaam
www.euronet.nl/users/darkside/mbmonitor

Calendar Of Events

June 15–August 28

Kids Summer Computer Camp

Rightway Computer Training Centers, Inc. hosts its first annual "Kids Summer Computer Camp." This program is designed specifically for children ages 10 and up who want to learn how to use their computer. The sessions will offer hands-on training in Windows 95, Microsoft Word, surfing the Internet using Netscape Navigator and Internet Explorer and creating a Web page using FrontPage 98. Each session is five days (Monday through Friday) for four hours a day from 8:30am to 12:30pm. Sessions will begin June 15 and run through August 28. Tuition is $175 per week before June 1 and $195 per week after June 1. Rightway Computer Training Center, Inc., 1270 E. Garvey Ave, North, Ste. 240, Covina, CA 91724. (626)331-5667.

June 21–25

Web '98

Moscone Center, San Francisco

Whether you're a Web developer or a strategist, a visual designer, or a usability expert, you'll come away from Web '98 with new ideas, new skills, tons of course materials, and maybe even some contracts. The first two days of the conference are dedicated to in-depth tutorials from the best in the business on the latest in Web techniques. On the last three days, they'll have six subject tracks of practical classes that cover what every Web team member needs to know in order to keep up with the industry. The tracks will be: Strategy, Information Design, Visual Design, Usability, Programming, and Backend. Plus, across the six tracks they'll cover the latest trends, update you on new technologies, and expose you to new tools and technologies. To reserve your place at Web '98 visit *www.mfweb.com*, or call (718)821-6723.

June 27

1998 CSPA Annual Conference

Cool And Promising Apps On The Web

Hear the latest on e-commerce and the next generation of Web applications from CEOs and VPs from Intel, Infowave, WorldRes, WebTV, OnSale, and Barnes and Noble. The conference will be from 9:30am until 4:30pm in the Terman Auditorium at Stanford University in Palo Alto. CSPA member fees are $20, and non-members fees are $30. Everyone is welcome to attend. To pre-register for this event write: *cspa_conf@hotmail.com*, or visit their Web site at *www.cspa.com/conf98*.

Conferences, Shows, Special Events

June

June 13–14 MarketPro Computer Shows & Sales. Solano Co. Fairgrounds, Vallejo. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

June 15–18 WEB.X-New York. NY. Miller Freeman, Inc. Contact: *www.webdotx.com*.

June 16–18 PC Expo. NY. Miller Freeman Group. Contact: 1-800-829-3976 or *www.pcexpo.com*.

June 16–18 The AS/400 Strategies Conference. Chicago, IL. DCI. Contact: (978) 470-3880, or *www.dci.com*.

June 17–19 Wet Ice 98. Palo Alto. IEEE Computer Society. Contact: (304)293-7226, or *wetice@cerc.wvu.edu*, or *www.cerc.wvu.edu/WETICE/template.html*.

June 19–20 ITCC '98. Hyatt Regency, Reston, VA. TRI Group, Inc. Contact: *www.itccexpo.com*.

June 20 MarketPro Computer Shows & Sales. Sonoma County Fairgrounds, Santa Rosa. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

June 21 MarketPro Computer Shows & Sales. Scottish Rite Center, Sacramento. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

June 22–24 The Knowledge Management Conference. Boston, MA. DCI. Contact: (978) 470-3880, or *www.dci.com*.

June 22–25 Entrust SecureSummit 98. Chicago, IL. Entrust Technologies. Contact: 1-800-867-4141, or *http://securesummit98.entrust.com/*.

June 23–25 Windows NT Expo. Boston, MA. DCI. Contact: (978)470-3880, or *www.dci.com*.

June 23–25 Database And Client/Server World. Hynes Convention Center, Boston, MA. DCI. Contact: (978)470-3880, or *www.dci.com*.

June 24–26 Building Data Warehouses and Data Marts to Deliver Measurable Business Benefits. Dallas, TX. DCI. Contact: (978)470-3880, or *www.dci.com*.

June 24 1998 Suppliers Expo. San Jose. The Fabless Semiconductor Assoc. Contact: (972)866-7579.

June 25–27 Graphix East 98. PA. Graphic Arts Show Company, Inc. Contact: *www.gasc.org*.

June 27 1998 CSPA Annual Conference: "Cool & Promising Apps on the Web. Terman Auditorium, Stanford University. Register at *cspa_conf@hotmail.com*.

June 27 MarketPro Computer Shows & Sales. Fresno Fairgrounds, Fresno. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

June 28 MarketPro Computer Shows & Sales. Civic Auditorium, Stockton. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

July

July 2–7 Fourth World Exhibition of New Products. Morocco. Contact: Maroc de l'Invention (212)2-443300, or *info@maroc-invention.com*.

July 5 MarketPro Computer Shows & Sales. Sonoma Co. Fairgrounds, Santa Rosa. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

July 7–9 MacWorld Expo. Jacob K. Javits Convention Center, NY. IDG. Contact: 1-800-645-EXPO, or *www.macworldexpo.com*.

July 10–12 Brave New Home Expo. San Francisco. Habitat For Humanity. Contact: (925) 439-0434, or *www.newworldexpo.com*.

July 12 MarketPro Computer Shows & Sales. Civic Auditorium, Stockton. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

July 18 MarketPro Computer Shows & Sales. Centre Plaza at Double Tree, Modesto. MarketPro. Contact: 1-800-708-7555, or *http://marketpro.com*.

July 21–23 Teen Power Interactive '98. San Francisco. iqpc. Contact: 1-800-882-8684, *www.iqpc.com*.

July 28–30 Marketing Automation Conference and Expo. New York, NY. DCI. Contact: (978)470-3880, or *www.dci.com*.

July 28–30 Business Solutions And Technology Immersion Conference. New York, NY. DCI. Contact: (978) 470-3880, or *www.dci.com/datawhse*.

Classes, Seminars, Workshops

June

June 11 Real-Time Win32 and Java Seminar. Los Angeles. Aonix. Contact: 1-800-971-6649, or *www.aonix.com/seminars*.

June 12 QuickBooks 5.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 13–14 VRML Intensive–$575. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu*.

June 15 Internet Intensive. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 15 Internet Marketing Magic. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 15–16 AutoCAD R14 Update (R12 Users) Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com*, or *www.copperconn.com*.

June 16 Intro to Mail Merge. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 16 Real-Time Win32 and Java Seminar. Boston, MA. Aonix. Contact: 1-800-971-6649, or *www.aonix.com/seminars*.

June 17 AutoCAD R14 Update (R13 Users) Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com*, or *www.copperconn.com*.

June 17 Intro to PowerPoint. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 17 Access 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 17 Excel 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 18 QuickBooks 5.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 20 Intro to FrontPage. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 20 Intro to HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 20–21 VRML Intensive–$575. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu*.

Show Solutions

You Will Save Money at this Show!

There is no better show for you to save a lot of money at. Like at other shows, you can get your hands on all of the latest computer and internet technology; but at Robert Austin Computer Shows, you can save a whole lot of money.

Saving you money is one of the reasons the admission to the Computer Show is free. This is the show where you can gain a working knowledge of the state of the art in computer technology and scores of stores sell it for special, one day only show prices.

When you get to the show, you will see thousands of people carting around all kinds of computers and computer related equipment because they know how much money they are saving at this show.

Robert Austin

Presents the Bay Area's Largest

COMPUTER SHOW & INTERNET EXPO!

Computer Dating for Married People

Bob, Sue & their son went on a date with the money they saved at this show!

FREE ADMISSION • FREE ADMISSION

See More Internet Exhibits Than Ever Before!

Get Big Savings with Show Prices!

Learn and save from dozens of reputable retailers competing under one roof to offer the best savings and guarantees!

Customer satisfaction & tremendous savings are the goals of our shows!

WOW! If You are NOT AMAZED by How Much Money You Save at this Show You Should Check Your Pulse!

San Francisco
COW PALACE
Saturday, July 11th
& Saturday, August 1st

Oakland
OAKLAND CONVENTION CENTER
10th & Broadway
Saturday, June 20th
& Saturday, July 18th

Get On VIP List

When you register at show be sure to give us your e-mail address and receive seminar schedules and save time by being pre-registered.

* Limited to stock on hand.

OUTRAGEOUS DEALS UNDER ONE ROOF!

- ➢Internet Education
- ➢Internet Service
- ➢See Hundreds of Displays
- ➢Buy at Wholesale
- ➢Software & CD ROM
- ➢Explore thousands of products

ALL SHOWS 10AM-4PM

Robert Austin Corporation

Computer Show Information Hotlines
For Show Dates and Locations 24 Hours a Day

Telephone:
1-800-243-7041

or visit our Web Page on the Internet
http://www.robertaustin.com

Super Discount Source of Computers, Accessories & Peripherals

www.universalcomputers.com

Laptops TOSHIBA

Libretto50CT P100, 6.1" TFT 32/3GB $965

T-490XCDT P266, 12.1" TFT 32/4GB $2895

Lowest Prices on all TOSHIBA Laptops ..... Guaranteed

G3/250 32/4GB, 20xCD/ 56K Fax/Mdm.... $3666

G3/233 & G3/266 ..... $1477/1688

4400/200 Dos P/166,32/2GB, 12xCD . $999

9600/200MP 32/4GB, 12xCD $1777

CD ROM & CD Recordable

4x8 CD-R $469

2x4x6 CD-R W $579

32x CD-ROM $79

HITACHI DVD

DVD Internal w/Card & 3 Titles ... $199

WACOM Graphic Tablets

ArtPad II 4x5/ArtZ II 8x8 ... $119/259

ArtZ II 6x8/12x12 w/Painter 5 $CALL

ArtZ II 6x8"/12x12" $195/289

LOG

CDR Media

74Min., 650MB

10 Pack ... $14

100+ ... $1.35

1000+ ... CALL

Fax/Modem

56KX2 PCMCIA PC ... $99

56KX2 Int. PC ... $79

56KX2 Ext. MAC ... $149

56K V.90 Ext. MAC ... $169

US Robatics

SOFTWARE

Sabre Deals

MS Office 98 for MAC ... $369

MS Office 97 Pro for PC ... $389

MS Excel 97 for PC ... $158

MS Word 98 for MAC ... $159

MS Word 97 for PC ... $149

MS Windows NT 4.0 5User $499

Photoshop 5.0 ... $479

Illustrator 7.0 ... $268

PageMaker 6.5 ... $325

QuarkXpress 4 ... $899

Freehand 8 ... $245

Painter 5 ... $228

Color Displays

SONY

ViewSonic

GT 775 17" $465

G810 21" ... $959

P810 21" ... $1055

AGFA

Arcus II ... $1175

DuoScan ... $2375

ePhoto 307 ... $239

ePhoto 1280 ... $739

UMAX Scanners

The Magic of Color

UG-630, 600 dpi ... $79

Astra 610S ... $117

Astra 1220S 36 bit ... $219

Astra 1220P 36 bit ... $195

PowerLook II ... $1089

Memory Competitive Prices on Simm & Dimm modules

HEWLETT PACKARD Printers

Blowout

LaserJet 4V

600dpi,16ppm,4MB

$1265

1 Year Warranty

NEW LaserJet 4000/4000*/4000N 17PPM, 1200dpi ... $1029/899/1379

LaserJet 4000TN/4000TN*/5000/5000N ... $1485/1350/1385/1845

LaserJet 5/5M/5N/5MP* ... $895/1325/1139/525

LaserJet 6L/6MP/6P/6P*/4V*/4MV ... $339/815/645/595/1195/1875

Hard Disk Drive

Upgrade your notebooks' drive & we will include EZ Drive software!

2.16GB/3GB 2.5" ... $189/229

4GB/5GB 2.5" for all laptops $339/479

Zip / Zip Plus Drive ... $135/179

Jaz / Jaz II Drive ... $269/549

Jaz 3 pack/Zip10 pack Crtrdg. $235/99

Adaptec

AHA-2940UW SCSI-II & SCSI III ... $179

AHA-1535 PCI bus Int. SCSI card ... $55

Quantum Atlas 4.5GB III ... $349

Apple Original 2GB SCSI II ... $159

Seagate Hawk 4.5GB SCSI II ... $329

Seagate Cheetah 9GB SCSI III ... $749

UNIVERSAL COMPUTERS, INC. 1-800-621-1963

Tel:(818)-786-8150 Fax:(818)787-2111

e-mail:usales@universalcomputers.com

resources | calendar of events

June 20–22 Hands-On Multimedia Design and production Workshop–$630. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

June 22 Advanced Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 22 Intro to Windows 95. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 22 Intro to UNIX. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 24 Microsoft Access. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 24 PowerPoint 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 25 Free Seminar: CNE/MCSE Network Certification –Networking For Your Future. San Jose. LANOP. Contact: (408)441-9902.

June 27–28 Windows 95 Super Weekend. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 29 Intro to the IBM PC. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 29 Advanced UNIX. San Francisco. The Learning Annex. Contact: (415)788-5500.

June 30–August 18 Intro to Interactive Multimedia–$375. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July

July 1 Word 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 1–August 19 Character Animation–$575. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 2 Intro to Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 2 Advanced Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 2–23 Macromedia Flash–$350. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415) 904-7700, or *http://msp.sfsu.edu* .

July 3 Intro to Java. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 6 Intro to Windows 95. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 6–9 AutoCAD R14 Fundamentals Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

July 6–August 10 The Production Process–$325. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 7 Excel 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 9 Internet Marketing Magic. San Francisco. The Learning Annex. Contact: (415) 788-5500.

July 9–August 20 Photoshop II (Mac)–$550. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 11 Advanced HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 11 Intro to HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 13 Advanced Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 13–16 AutoCAD R14 Advanced 2D Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

July 14 Software and Technical Marketing in Eastern Europe. Mt. View. SimulTrans, L.L.C.. Contact: *www.simultrans.com/events.htm#schedule* .

July 14–August 18 Photoshop III (Mac)–$735. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 15 Intro to PowerPoint. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 15 Creative Multimedia Development–$525. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 15 Excel 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 15–August 5 Freelance and Flourish–$265. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 16–17 3D Studio VIZ for Architects–$395. San Francisco. SFSU Extended Education. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 16–18 Printed Circuit Fabrication and Assembly Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

July 16–August 20 Director II–$575. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 18 Internet for the Inexperienced with Netscape Navigator. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 18 Intro to FrontPage. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 20 Intro to UNIX. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 20–23 AutoCAD R14 3D Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , *www.copperconn.com*

July 21 Intro to Mail Merge. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 22 Microsoft Access. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 22 Access 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 23 Free Seminar: CNE/MCSE Network Certification–Networking For Your Future. San Jose. LANOP. Contact: (408)441-9902.

July 23–24 NT 4.0 Server–$495. San Francisco. SFSU Extended Education. Contact: (415) 904-7700, or *http://msp.sfsu.edu* .

July 25 Intro to HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 25 Advanced HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 25 Project Planning & Implementation–$215. San Francisco. SFSU Extended Education. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 25–26 Windows 95 Super Weekend. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 27 Intro to Windows 95. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 27 Advanced UNIX. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 27 Intro to the IBM PC. San Francisco. The Learning Annex. Contact: (415)788-5500.

July 28–August 18 3D Character Design–$445. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 28–August 18 Audio Engineering I–$400. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

July 29 PowerPoint 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

August

August 3–6 AutoCAD R14 Fundamentals Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

August 4 Excel 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 4–7 AutoCAD Level I–$695. San Francisco. SFSU Extended Education. Contact: (415) 904-7700, or *http://msp.sfsu.edu* .

August 5 Word 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 6 Intro to Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 6 Advanced Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 7 Intro to Java. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 8 Intro to HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 8 Advanced HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 10 Internet Intensive. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 10 Intro to Windows 95. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 10–13 AutoCAD R14 Advanced 2D Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

August 11–14 AutoCAD Level II–$695. San Francisco. SFSU Extended Education. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

August 12 Excel 97. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 17 Intro to UNIX. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 17 Internet for the Inexperienced with Netscape Navigator. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 17–20 Autodesk Mechanical Desktop Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

August 18 Intro to Mail Merge. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 19 Creative Multimedia Development–$525. San Francisco. SFSU Downtown Multimedia Studies Prgm. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

August 19 Microsoft Access. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 19 Intro to PowerPoint. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 20 Intro to Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 20 Advanced Word 7.0. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 21–22 3D Studio MAX III–$395. San Francisco. SFSU Extended Education. Contact: (415)904-7700, or *http://msp.sfsu.edu* .

August 22 Advanced HTML. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 24 Advanced UNIX. San Francisco. The Learning Annex. Contact: (415)788-5500.

August 25 Drafting Fundamentals Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

August 27 Drafting Fundamentals Workshop. Santa Clara. The Copper Connection. Contact: (408)970-9838, *TeachACAD@aol.com* , or *www.copperconn.com* .

need t-shirts?

Just read Joe's story.

A friend told Joe about a company called Century Graphics that does custom printing on t-shirts. Joe called Century Graphics and found out that he could also get polos, sweats, jackets, caps and more. He could even send his artwork by e-mail. He got a price for t-shirts and shouted,

"Hey, we can afford this!"

7.37 ea. for 25
5.78 ea. for 50
4.99 ea. for 100

White Beefy Ts. One color, One Location.

It was so simple. All screen and set-ups were included and there was also one hour of free artwork with every order.

About One week later, the order was done. When the group saw their shirts - they loved them. Everyone always thought Joe was pretty sharp; now they know.

(408) 616-7700
CENTURY GRAPHICS
Screen Printing & Design
visa & mastercard
embroidery
www.cgshirts.com
155 Commercial St., Sunnyvale, CA 94086
fax. (408) 616-7733
sales@cgshirts.com

Where Will Your Career Be By The Year 2000?

Get Certified Now!

Novell/Microsoft CERTIFICATION

— Test Preparation Programs —

FINANCING AVAILABLE

GUARANTEE TO PASS ALL TESTS THE FIRST TIME.

Unlimited hands-on practice.

Free Seminars:
Call now to reserve your space!

LANOP
http://www.lanop.com

BURLINGAME 650/697-0940
EMERYVILLE 510/595-1575
SAN JOSE 408/441-9902
LOS ANGELES 310/215-0405

Bulletin Boards

Multizone

BayPlay BBS. (408)227-9300, 955-0278, 296-2910; (415)951-9606; (650)968-6843, 366-8249, 341-4531, 583-6900; (510)780-9484, 426-2438, 793-8637, or *www.bayplay.com* ; Telnet: *//bayplay.com* . 24 hrs., 28,800. Worldgroup, 16 lines, adults only, free trial, membership, trivia, crosswordz, TradeWars 2000. ALL lifestyles welcome. Sysop: Zoltan. [Exp. #181]

415

GGCS BBS. (415)457-2516. 8-N-1, 24 hrs., 33600/2400 (limited access less than 9600 bps). Free BBS. Users helping users. Sponsored by Golden Gate Computer Society. Sysop: Doug Rainger. [Exp. #181]

The Compound Eye. (415)749-0426. 24 hrs., up to 28,800. Free. Our tentacles have infiltrated your mind. There is no escape. Sysops: Deekoo L. & Monde. [Exp. #180]

510

Red Dwarf BBS. (510)261-3966. 24 hrs., 2400–28.8. Wildnet, Cyber-3Dnet, MSI SupportNet, messages, files, doors. SciFi/RPG based, but we offer more. All welcomed. Sysop: Earl Williams. [Exp. #180]

650

Bay Windows BBS. (650)871-0359. 8-N-1, Dos, Windows, Games Online door games. No gifs, no handles, Free 24 hrs. Echo mail sponsored here. Sysop: Judy. [Exp. #180]

Kewl! BBS. (650)592-8520. Telnet: *kewl.net*, 20 nodes, worldgroup. Games featuring MajorMUD, WWW/Telnet/FTP/IRC/ , Internet email services, files, forums, chat, and more. Free trial! *www.kewl.net* . Sysop: Squelch, [Exp. #181]

Kill-O-Byte BBS. (650)344-1563. 24 hrs., 2400–33,600. Online files, CD-ROMs, games, Amiga, IBM, OS/2, Windows. FREE access! [Exp. #182]

Peninsula Computer BBS. (650)571-9259. 8-N-1, 24 hrs., 2400–28,800. GT Power Network v1900; email; nearly 2,000 files: DOS, OS/2, shareware, door games for callers. Sponsored by the Peninsula Computer Club. FREE BBS, *www.sirius.com/~jlo* . Sysop: Bob Wallace. [Exp. #180]

The International Academy for Peace Education B.B.S. (650)992-4274. 8-N-1, 24 hrs., Use vt100 emulation. Ethical Empirical Economics and more. Free. Sysop: Dennis McNamara. [Exp. #181]

707

StarBase 515. (707)792-0880. 8-N-1, 24 hrs., 33,600 BPS. Spitfire-based system, with nearly 10 gigs of online files on 21 CD-ROM drives!, Free access too! [Exp. #180]

The Duck Pond BBS. (707)585-6251. 8-N-1, 24 hrs., 33,600 BPS. Spitfire-based system, with 10 gigs of files & also free access. [Exp. #180]

The Mos Eisley BBS. (707)588-8484. 8-N-1, 24 hrs., 33,600 BPS. Spitfire-based system, with Lord, & Lord 2. Free access! [Exp. #180]

925

Greater Light Online Worldwide. (925)754-6010. 24 hrs., Christian-oriented but all very welcome. All 56K. World Wide Web access only $10/month. Ready, set, G.L.O.W! Fee/free. Sysops: Michael Bryant, Beverly Reagan. [Exp. #185]

User Groups

Amiga

AWEST—Amiga Users In SF. Meetings: 2nd Wed., 6:30 pm, Excelsior Branch Public Library, 4400 Mission St. (near Ocean), San Francisco. Call: (415)474-1164; BBS (415)441-1120. [Exp:#181]

TOGA—The Other Group Of Amigoids. Meetings: 4th Sat., 12:30 pm, Milpitas Community Library Meeting Rm., 40 N. Milpitas Blvd., Milpitas. TOGA is an informal, non-profit group of Commodore Amiga computer users that meet to share ideas, PD software, and information. Contact: Randy Abel, (408)356-9405 or *rabel1@dsp.com* ; Warren Burnham, (408) 252-3406 or *wburn46506@aol.com* ; *www.calweb.com/~rabel1* . [Exp:#185]

Atari

ABACUS—Atari Bay Area Computer Users Society. Meetings: 1st Sat., 1:00 pm, Potrero Branch Public Library, 2nd fl., 1616 20th St., San Francisco. Supporting all Atari computers and video games systems. Call: Roger Sinasohn, (415)469-7924, BBS (415)564-8062. [Exp:#183]

San Leandro Computer Club. Meetings: 1st Tues., 8:00 pm, San Leandro Main Library Estudillo Rm., 300 Estudillo Ave, San Leandro. Call: Robbie, (510)797-5636. [Exp:#184]

CAD

Alternative Micro Systems, Inc. (AMS). Meetings: 1st Tues., 7:00 pm, held at 3016 Coronado Dr., Santa Clara, CA 95054. Autodesk users group featuring tips and tricks. Meetings are open to all levels of Autodesk users from novice to expert at no charge. Contact: Elise Moss (408)654-9500 ext. 211. [Exp:#185]

San Francisco 3D Studio User Group. Meetings: 2nd Sat., check Web site for location, date, subject and other information. *www.sf3dsug.com* . [Exp:#183]

San Francisco AutoCAD Users Group. Meetings: 1st Mon., 6:00 pm, SFSU Downtown Center at 425 Market St. Contact: Lillian (415) 263-6748 or *www.sfaug.org* . [Exp:#183]

Silicon Valley Autocad Power User Group. Meetings: Quarterly 6:00 pm, Santa Clara Convention Center, 5001 Great America Pkwy., Santa Clara. Contact: Tracy Rogers, (415) 282.4448, or *www.power.org* . [Exp:#184]

Commodore

CHUG (Commodore Hayward User Group). Meetings: 2nd Sat., 2:00 pm, Palma Ceia Park Clubhouse, Hayward. Commodore 64 and 128 owners are welcome to attend. Call: (510)793-7868. [Exp:#183]

CWEST—Commodore 64/128 Users In SF. 2nd Wed., 6:30 pm, Excelsior Branch Public Library, 4400 Mission (near Ocean), San Francisco. Call: (415)474-1164; BBS (415) 441-1120. [Exp:#181]

IBM And Compatibles

Armageddon LAN Gaming Group. Meetings: Meets monthly in Concord, San Jose, and Sacramento. Any and all games played over a Local Area Network with hundreds of others in the same room. Contact: Tim (510)682-0826; *www.armageddon-gaming.com* ; *mach1@armageddon-gaming.com* . [Exp:#182]

Diablo Valley PC User Group—DVPC. Meetings: 1st Thurs., 7:00 pm, B of A Technology Center in Lobby Conference Room, Bldg. B, 2001 Clayton Rd., Concord. SIGs include Internet, Windows, Beginner's, Visual Basic, education/entertainment, and more. Call: Craig Peterson, (510)556-1449, *bod@dvpc.org* , or *www.dvpc.org* . [Exp:#184]

East Bay FOG. Meetings: 2nd Wed., 7:30 pm, Episcopal Church of St. John-in-Montclair, 1707 Gouldin Rd., Oakland. All microcomputers, MS-DOS, CP/M. Call: (510)653-2627. [Exp:#185]

Golden Gate Computer Society. Meetings: 4th Mon., 7:00 pm, San Rafael Community Center, 618 B St., San Rafael. Free intro to computers class at 6:00 pm. Call: (415)454-5556, or *www.ggcs.org* . [Exp:#185]

PC Clubhouse. Meetings: 1st Fri., 7:30 pm, swap at 7:00 pm, CSU Hayward, Meiklejohn Hall, Room 2002. Learn more about your computer. Product demos. Member help. Call: (510)538-2449, (510)276-6450, or *www.pcc.org* . [Exp:#182]

Peninsula Computer Club. Meetings: 2nd Thurs., 7:30 pm, 222 Laurel St., San Carlos. DOS and CP/M libraries. Call: (650)593-9981, BBS (650)571-9259, or *larryw3553@aol.com* . [Exp:#183]

San Francisco Bay Area Powerbuilder Users Group (SFBPUG). Meetings: 3rd Thurs., San Francisco. Please check our Web site at *www.sfbpug.org* for location details. Contact: Craig Orr at *crbare@redshift.com* . [Exp:#183]

San Francisco PC Users Group. Meetings: 3rd Tues., 7:30 pm, PUC Auditorium, 505 Van Ness Ave./McAllister. Presentations, Q&A sessions. Call: Pierre Hahn, (415)474-1587 or 777-1332 for recorded events message, *www.sfpcug.org* . [Exp:#181]

User Groups

Internet

Internet SIG of the Association of Database Developers (ADD). Meetings: 3rd Tues., 7:00 pm, 124 Beale St., Mezzanine Level, San Francisco. Focuses on how to integrate databases into Web sites. Contact: Patrick Lynch, (510) 482-5752, *patl@a.crl.com* , or *www.baadd.org* . [Exp:#183]

Macintosh

A32. Meetings: 2nd Sat., 10:00 am, Strawberry Square clubhouse, 530 Strawberry Ln., San Jose (off Moorpark, between Lawrence and Saratoga). Product demos, and Q&A sessions. Contact: (408)881-0790, or *www.batnet.com/rlbrown/A32.html* . [Exp:#181]

BMUG User Group. Meetings: every Thurs., 6:30 pm, BMUG, 2070 Allston Way (basement level), Berkeley. Q&A, vendor demo and raffle. Free. Contact: (510)549-2684 or *www.bmug.com* . [Exp:#184]

Macs Of Marin. Meetings: last Wed., 8:00 pm, Corte Madera Rec. Center, 498 Tamalpais Dr., Marin. Q&A at 8:00, members free, non-members $5. Call: Richard, (415)485-5596. [Exp:#185]

P.I.E. Macintosh Special Interest Group. Meetings: 3rd Wed., 7:00 pm, Cypress Senior Center, Rm. 4, entry thru Rm. 3, San Jose. Email at *frnmrn@juno.com* . Call: Frank A Arnerich, (408)244-4034, or *www.juno.com* . [Exp:#184]

Peninsula Apple Users GroupPAUG. Meetings: 3rd Tues., 6:30 pm, At the Unitarian Church, 2124 Brewster Ave. (at Lowell, use side entrance), Redwood City. Newsletter, speakers, software demos, DOM, Q & A, library. Contact: Roger Lakner, (650)367-8657, or *www.wwinfocenter.com/PAUG/* . [Exp:#184]

Miscellaneous

Access SIG of the Association of Database Developers (ADD). Meetings: 2nd Weds., 7:00 pm, 124 Beale St., Mezzanine Level, San Francisco. Contact: Paula Payne (510)594-1152, *pmp@outformations.com* , or *www. baadd. org* . [Exp:#183]

BayCHI. Meetings: 2nd Tues., 7:30 pm, Xerox PARC Auditorium, 3333 Coyote Hill Rd., Palo Alto. Computer-Human Interaction Group. Free and open to the public. Infoline (408)235-9422, or *www.baychi.org* . [Exp:#181]

DIG.FM—FileMaker Developer Interest Group. Meetings: 3rd Wed., 7:00 pm, FileMaker Inc., 5201 Partick Henry Dr., Santa Clara. Everyone is welcome. Each meeting consists of presentations followed by smaller interest group sessions. Contact: Dave Nicely, (510)526-3744. [Exp:#184]

FoxVFP SIG of the Association of Database Developers (ADD). Meetings: 1st Thurs., 7:00 pm, 124 Beale St., Mezzanine Level, San Francisco. Contact: Dean Lesner (415)788-4366, *dlesner123@aol.com* , or *www.baadd.org* . [Exp:#183]

MS Access Peninsula User Group. Meetings: 2nd Fri., 1:00 pm, Metro Center Bldg., 9th fl., Foster City. All welcome from beginners to professionals. *www.rampage.net/accdocs/sigs/htm* . [Exp:#181]

North Bay Users Group NBUG. Meetings: 2nd Thurs., 7:30 pm, 330 Rodgers St., Vallejo. Open to all. Contact: Lolly, (707)645-8768 or *www.home.inreach.com/nbug* . [Exp:#181]

San Francisco Business Computers. Meetings: For people who use computers in their work. All makes, models, and software welcome. Contact: Jordan Rosenberg at *sfbc@juno.com* . [Exp:#185]

Silicon Valley Clarion User Group. Meetings: 2nd Weds., 7:00 pm, San Jose. Contact: Don Wood, *www.desine.com/svcug* . [Exp:#181]

Networking

EBNUG (East Bay Netware User Group). Meetings: 3rd Thurs., 6:30 pm, Meetings at EBMUD, 375 11th St., Oakland. Contact: Andy Zutler at email address *azutler@radiolan.com* . [Exp:#184]

Novell

Novell Users Group of Monterey/Salinas/Santa Cruz. Meetings: 3rd Thurs., 6:30 pm, 40 Ragsdale Dr., (Ryan Ranch), Monterey. Membership: $25/year or $5/meeting. Contact: *jspencer@jps.net.* [Exp:#182]

PC and TRS-80 Nybblers Computer Club. Meetings: 3rd Fri., 8:00 pm,. Prado Internet Access, 1260 A St., Hayward. Contact: For info write *Nybblers@aol.com* , or *www.members.aol.com/Nybblers* . [Exp:#181]

Programming Languages

Java SIG of the Software Forum. Meetings: 1st Tues., 7:00 pm, Cubberly Community Ctr., 4000 Middlefield Rd., Rm. H-1, Palo Alto. Free to members, $10 for non-members. Contact: Tom Hill, *javasig@worldware.com* . [Exp:#181]

Texas Instruments

TI-99/4A. Meetings: 2nd Sat., Oakland. Need programs/hardware? Call: Fred, (510)530-8335. [Exp:#184]

UNIX

Bay Area FreeBSD Users Group (BAFUG). Meetings: 2nd Thurs., 7:30 pm, San Francisco and Redwood City. See Web site for directions and updated times and locations. Free and open to all interested in FreeBSD, UNIX, and OpenSources. Refreshments are provided. Meetings are free. *www.freebsd.org* , or *www.arachna.com/freebsd/freebsd-sf.html* , or *spidaman@arachna.com* . [Exp:#184]

San Francisco Bay Area FreeBSD User Group. Meetings: 7:30 pm, This group serves the needs of the San Francisco Bay Area FreeBSD user base and holds meetings approximately once a month. Please see Web page for details. *www.arachna.com/freebsd/freebsd-sf.html* . [Exp:#182]

Windows NT

Bay Area Windows NT User Group. Meetings: 1st Sat., 1:00 pm, San Francisco and Cupertino, see Web site for times and locations. This professional association is for NT systems administrators and developers. Contact: Edwin Rutsch, (510)528-9895, or *edwin@wyp.net* , or *www.bantug.org* . [Exp:#181]

Central California Windows NT Users Group. Meetings: 1st Sat., 10:00 am, Oakhurst. Contact: Robert Slovick, (209) 683-1499, or *www.inetassist.com/ntug* . [Exp:#181]

Bay Area NT Users Group (BANTUG). Meetings: 2nd Weds., 6:30 pm, Teknowlogy Education Center, 50 California St., Ste. 1600, San Francisco. Refreshments are provided. Meetings are free. Contact: Edwin Rutsch, (510)528-9895, *edwin@wyp.net* , or *www.bantug.org* . [Exp:#181]

Associations

CoCo 2000. Meetings: 2nd Tues., 6:00 pm, Contra Costa Year 2000 User Group meets at OASys Network Solutions, 1855 Gateway Blvd., 7th fl., Concord. Free and open to all. Contact: John Cascio (925)685-6279, or *jcascio@oasys-cs.com* . [Exp:#185]

ICCA Silicon Valley. Meetings: 4th Tues., 6:00 pm, Hobbee's Restaurant, 920 Town and Country Village (Stevens Creek/across from Valley Fair Mall), San Jose. Regularly-scheduled dinner meetings, $25 non-members/$20 members. Contact: Paul Stith, (408) 439-0870, ext. 2, *info@icca-sv.org* , or *www.icca-sv.org* . [Exp:#182]

San Francisco Association of Internet Professionals—AIP-SF. Meets 1st Tues., 6:00 pm, Transmission Theater, 314 11th St. (near Folsom) in the SOMA part of San Francisco. A membership- and chapter-driven organization with the ability to unify, support, and represent the global community of Internet professionals. See Web site for meeting times/location. Contact: Jeff Ward, (408)899-2011, *jward@association.org* , or *www.association.org* . [Exp:#181]

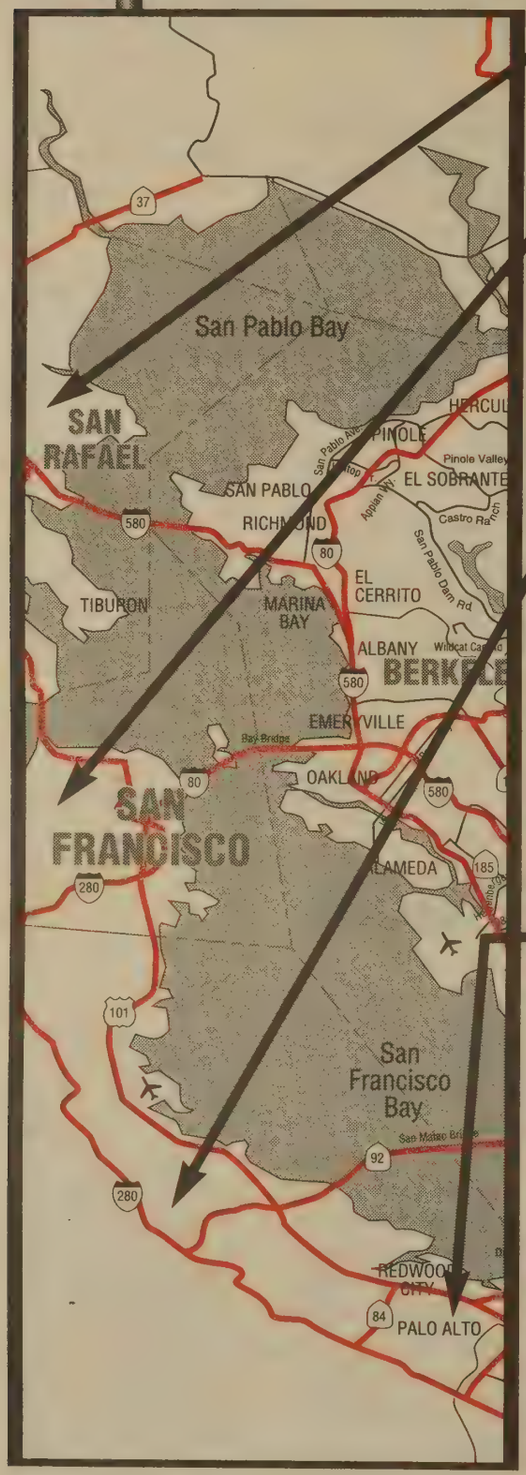
San Francisco Web Business Mixer. Meetings: 2nd Weds., San Francisco. A monthly after work mixer and networking event for people in the business of Web publishing, design, advertising, marketing, and commerce. $5 gets you table space and T1 access. Bring your business cards, brochures, and URLs! Details on the monthly featured speaker are always at *www.webmixer.com* . [Exp:#183]

Society For Technical Communication, San Francisco Chapter. Meetings: 3rd Wed., 6:00 pm, London Wine Bar, 415 Sansome St., San Francisco. For technical writers and editors. Newsletter, annual competition. Non-members, $12. Contact: (415) 985-7121 or *http://stc.org/region8/sfc/www* . [Exp:#181]

The Software Forum. Meetings: 3rd Wed., 6:00 pm, Michaels at Shoreline, San Francisco. Call ahead to reserve a place. Contact: Kim Murray (650)854-8298, or *www.softwareforum.org* . [Exp:#181]

MICROTIMES SUPER STOPS

No Matter Where You Are – *MicroTimes* Is There For You!



MARIN

BCSA COMPUTERS • 385 Bel Marin Keys • Novato • (X Street: Gali)
HIQ SYSTEMS • 850 Sir Francis Drake Blvd. • San Anselmo • (X Street: 4th St.)

SAN FRANCISCO

BETA NINETIES • 566 Mission St. • San Francisco • (X Street: New Montgomery)
CENTRAL COMPUTER • 835-837 Howard St. • San Francisco • (X Street: 4th St.)
COMPUData • 22 Third St. • San Francisco • (X Street: Market)
HD COMPUTER • 232 Montgomery St. • San Francisco • (X Street: Bush)
HI-TECH USA • 850 Taraval St. • San Francisco • (X Street: 19th St.)
KONICOM COMPUTERS • 1443B Noriega St. • San Francisco • (X Street: 22nd St.)
SOFTWARE CENTER PLUS HARDWARE • 501 Howard St. • San Francisco • (X Street: 1st Street)
STARLITE ELECTRONICS • 2121 Taraval St. • San Francisco • (X Street: 31st)
UMIRACLE MICROSYSTEMS • 1528 Union Street • San Francisco • (X Street: Van Ness)

PENINSULA

COMPUTER RENAISSANCE • 280 Metro Center • Colma • (X Street: Serra)
DISK DRIVE DEPOT • 914 W. El Camino Real • Mountain View • (X Street: Arques)
HI-TECH USA • 111 E. 5th Ave. • San Mateo • (X Street: S. San Mateo)
HI-TECH USA • 441 El Camino Real • Menlo Park • (X Street: Middle Ave.)
IBI COMPUTERS • 551 Foster City Blvd., Suite N • Foster City • (X Street: Hillsdale)
IQ INFOQUEST • 4500 El Camino Real • Los Altos • (X Street: San Antonio)
LAITRON COMPUTER • 39 El Camino Real • Millbrae • (X Street: Millbrae Ave.)
STARLITE ELECTRONICS • 1161 Chess Dr., Suite D • Foster City • (X Street: Foster City Blvd.)

SOUTH BAY – WEST

AMERICAN COMPUTER RESEARCH • 1001 S. DeAnza Blvd. • San Jose • (X Street: Bollinger)
AROMA COMPUTER • 470 Lakeside Dr. • Sunnyvale • (X Street: Oakmead)
CENTRAL COMPUTER • 3777 Stevens Creek Blvd. • Santa Clara • (X Street: Saratoga)
DISK DRIVE DEPOT • 500 Lawrence Exp. • Sunnyvale • (X Street: Arques)
HALTED SPECIALTIES • 3500 Ryder St. • Santa Clara • (X Street: Central Exp.)
HD COMPUTER • 988 Walsh Ave. • Santa Clara • (X Street: Lafayette)
HIQ COMPUTERS • 740 N. Mary Ave. • Sunnyvale • (X Street: Maude)
HI-TECH USA • 730 E. El Camino Real • Sunnyvale • (X Street: Wolfe Rd.)
HKG COMPUTERS • 448 E. El Camino Real • Sunnyvale • (X Street: Fair Oaks)
KINGSTAR COMPUTERS • 855 Kifer Rd., Suite B • Sunnyvale • (X Street: Central Exp.)
MICRO-SONIC COMPUTERS • 3052 Scott Blvd. • Santa Clara • (X Street: Space Park)
CYBER TEK • 14530 Camden Ave. • San Jose • (X Street: Leigh)
MONITOR EXPRESS • 530 Lawrence Exp. • Sunnyvale • (X Street: Arques)
SWEET MEMORY • 2450 Scott Blvd. • Santa Clara • (X Street: Martin)
TRUE COMP AMERICA • 1264 S. Bascom Ave. • San Jose • (X Street: Stokes)
UNITED MICROSYSTEMS • 1180 Miraloma Way, Bldg. L • Sunnyvale • (X Street: Central Exp.)
WEIRD STUFF WAREHOUSE • 384 W. Caribbean Dr. • Sunnyvale • (X Street: Mathilda Ave.)

Call *MicroTimes* for a "Super Stop" Location Near You! 510-768-1200

MicroTimes Super Stops*

CONTRA COSTA

AIM COMPUTER • 1819 Willow Pass Rd. • Concord • (Park & Shop)
COMPUMART • 1320 S. California • Walnut Creek • (Next to Strouds)
EVERGREEN • 2700 Rydin, Suite C • Richmond • (X Street: Central Ave.)
LAITRON COMPUTER • 508 Contra Costa Blvd. • Pleasant Hill • (X Street: 2nd Ave.)
PARAMOUNT COMPUTER • 1630 Contra Costa Blvd., Suite D • Pleasant Hill • (X Street: Doray)
PERFECT SOLUTION • 10032 San Pablo Ave. • El Cerrito • (X Street: Central Ave.)

EAST BAY – NORTH

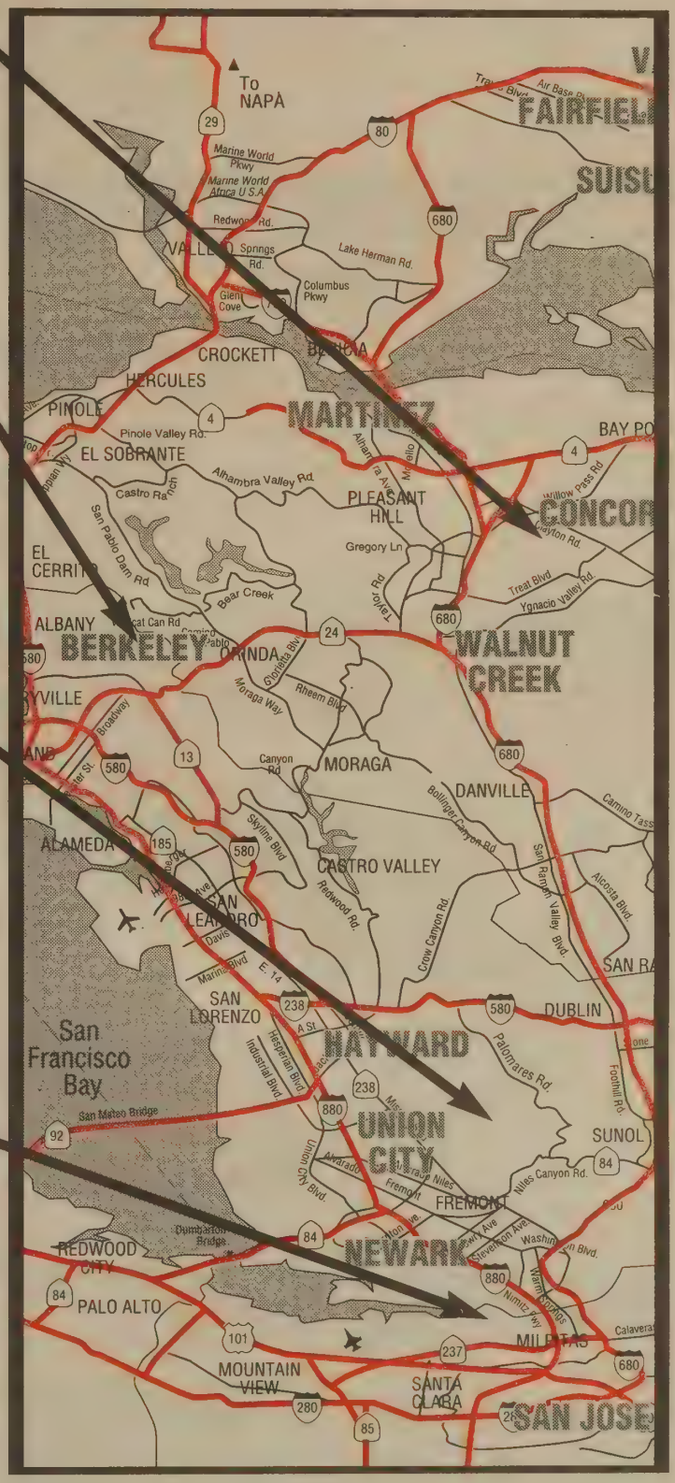
COMPUTER SOURCE • 518 San Pablo Ave. • Albany • (X Street: Brighton)
DJ COMPUTER • 926 San Pablo Ave. • Albany • (X Street: Solano)
HI-TECH USA • 2318 Shattuck Ave. • Berkeley • (X Street: Bancroft Way)
MAC • 2010 Shattuck Ave. • Berkeley • (X Street: University)
MERCURY COMPUTER • 1733 Broadway • Oakland • (X Street: 17th)
PC TEN • 4237 Piedmont Ave. • Oakland • (X Street: Pleasant Valley Way)
UMIRACLE • 1035 San Pablo Ave. • Albany • (X Street: Main)

EAST BAY – SOUTH

CENTRAL COMPUTER • 5990 Mowry Ave. • Newark • (X Street: Cedar)
COMTEK COMPUTERS • 6602 Dublin Blvd. • Dublin • (X Street: Hopyard)
GOLDEN MICRO • 46560 Fremont Blvd., Suite 408 • Fremont • (X Street: Warren)
LAITRON COMPUTER • 24901 Santa Clara St. • Hayward • (Gateway Shopping Center)
NCAL • 4847 Hopyard Rd. • Pleasanton • (X Street: Stoneridge)
SOFT SOLUTIONS • 6997 Dublin Blvd. • Dublin • (X Street: Hopyard)
UMIRACLE • 44063 Fremont Blvd. • Fremont • (X Street: AutoMall)
USM • 43104 Christy St. • Fremont • (X Street: AutoMall)
WEIRD STUFF SOFTWARE • 46577 Mission Blvd. • Fremont • (X Street: Warm Springs)

SOUTH BAY – EAST

AMERICAN MULTISYSTEMS • 1830 Houret Ct. • Milpitas • (X Street: Montague Exp.)
ART MULTIMEDIA SYSTEMS INC. • 424 S. Main St. • Milpitas • (X Street: Serra)
CHICOTEC • 542 W. Trimble Rd. • San Jose • (X Street: Hwy. 101)
HI-TECH USA • 1558 & 1562 Centre Pointe Dr. • Milpitas • (X Street: Montague Exp.)
LAITRON COMPUTER • 1550 Montague Exp. • San Jose • (X Street: Old Oakland Rd.)
LAITRON COMPUTER • 1080 Blossom Hill Rd., Suite D • San Jose • (X Street: Almaden Exp.)
MONITOR EXPRESS • 689 East Brokaw Rd. • San Jose • (X Street: Junction)
PIXEL USA • 810 S. Bascom Ave. • San Jose • (X Street: 280 Fwy.)
WORLD NET • 1503 N. Milpitas Blvd. • Milpitas • (X Street: Dixon)



*Super Stops: Locations that are restocked frequently with copies of ***MicroTimes*** throughout the month.

MicroTimes™
www.microtimes.com

JOIN OUR WINNING TEAM

PCChips AMD K6 MMX

- PCChips TXPro-II, 512K Cache, Pentium Motherbord with 168Pin DIMM+SIMM, onbrd Ultra-IDE, FD, HiSpd I/O, onbrd 16bit AudioSound, onbrd SIS 64Bit Video Port sharing upto 4MB memory, AT Format
- AMD® K6 MMX Processor w/ Smart Cooling Fan
- 32MB 168Pin 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- 3.2GB SamSung UltraDMA IDE HD
- 32X Speed Internal ATAPI IDE CD-ROM
- 15" SVGA Digital Power-Saving Monitor
- Medium Tower Chassis with 230W PowerSupply
- 104 Key Enhanced Windows95 Keyboard
- 2-Button MS Compatible Mouse w/ Premium Pad

AMD	K6 MMX
P233	$739
P266	$812
P300	$912

PCChips 440LX AGP

- PCChips motherboard with Intel 430LX chipset PII Motherbord with AGP +PCI support, onbrd 16bit AudioSound, 168Pin DIMM, onbrd Ultra-IDE, FD, HiSpd I/O, AT Format
- Genuine Intel Pentium® II 512K Processor w/ Cooling Fan
- 32MB 168Pin 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- 4.3GB SamSung UltraDMA IDE HD
- 32X Speed Internal ATAPI IDE CD-ROM
- SIS Chipset 3DPro AGP 4MB EDO Video Card w/SVHS TV output
- 17" SVGA Digital Power-Saving Monitor
- Medium Tower Chassis with 230W PowerSupply
- 104 Key Enhanced Windows95 Keyboard
- 2-Button MS Compatible Mouse w/ Premium Pad
- Pair of 100Watt Stereo Speakers
- Legitimate MS Windows 95 + Manual+ installed + fully-configured

Intel Pentium® II	
266-Celeron	$1037
233MHz	$1056
266MHz	$1104
300MHz	$1225
333MHz	$1359

Intel AL440LX Pentium II

- Intel AL440LX Pentium II Motherboard - 440LX AGPset with AGP,Yamaha OPL4 hardware wavetable audio,3 PCI/2 ISA/1 AGP slots, DIMM, Onbrd I/O, UltraDMA PCI IDE (Or choice of ASUS P2L97 motherboard with 16bit Audio Sound Card)
- Genuine Intel Pentium® II 512K Processor w/ Cooling Fan
- 64MB 168Pin 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- 6.4GB SamSung UltraDMA IDE HD
- 32X Speed Internal ATAPI IDE CD-ROM
- Intel new I740 Chip AGP 8MB SGRAM Video Card (DVD ready)
- 17" Hitachi NSA SuperScan Pro CM-620U Monitor
- ATX style Medium Tower 235W ATX PS
- KeyTronic 104 Key Win95 PS2 Keyboard
- Microsoft IntelliMouse with Wheel w/ Pad
- Pair of 100Watt Stereo Speakers

Intel Pentium® II	
266-Celeron	$1468
233MHz	$1487
266MHz	$1534
300MHz	$1656
333MHz	$1789

Intel SE440BX Pentium II

- Intel SE440BX Pentium II Motherboard - 233Mhz & above CPU support, 440BX AGPset with Accelerated Graphics Port Connector for optimal Video Graphics, Yamaha OPL4 hardware wavetable audio,3 PCI/2 ISA/1 AGP slots, DIMM, Onbrd I/O, UltraDMA PCI IDE (Or choice of ASUS P2B motherboard with 16bit Audio Sound Card)
- Genuine Intel Pentium® II 512K Processor w/ Cooling Fan
- 64MB 168Pin 100MHz 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- 6.4GB SamSung UltraDMA IDE HD
- 32X Speed Internal ATAPI IDE CD-ROM
- Intel new I740 Chip AGP 8MB SGRAM Video Card (DVD ready)
- 17" Hitachi NSA SuperScan Pro CM-620U Monitor
- ATX style Medium Tower 235W ATX PS
- KeyTronic 104 Key Win95 PS2 Keyboard
- Microsoft IntelliMouse with Wheel w/ Pad
- Pair of 180Watt Stereo Speakers

Intel Pentium® II	
350MHz	$2146
400MHz	$2362
450MHz	$2686

OUR SERVICE, OUR COMMITMENT

- A ... system is ... pieces and switches setup/configured. Windows 95/NT and all included software installed for testing purpose, high resolution video monitor mode tested and continuously burned in for 48 hours on all components and finally interactively inspected for trouble-free operation. All systems are to be inspected by customer at pick up time.
- Most advertised standard configurations have been pre-built, burn-in tested and are ready to be picked up or delivered within 60 minutes IN FREMONT MAIN OFFICE - Please allow more time for minor configuration changes. Standard delivery time is 72 hours.
- Free delivery area includes local area within 30 minutes driving distance. No delivery on weekends. Delivery out of local area will be charged up to $30 freight
- Most components come with over 1 year manufacturer warranty - First year will be covered by UMiracle. Warranty after the first year will be covered by component manufacturers.
- While-you-wait immediate service should there be any necessary warranty repair. If we couldn't solve the problem, another system will be built (at our discretion, if purchased within 30 days.)
- All pickups, repairs, exchanges, upgrades can be done in either Fremont, Belmont or Albany store. Original invoices & records required.

ASUS P2B-DS Dual PII AGP

- ASUS P2B-DS Intel Pentium II motherboard - 233-450Mhz Dual Pentium II support, 440BX AGPset with Accelerated Graphics Port Connector for optimal Video Graphics, onbrd Adaptec 7890 Ultra2-Wide SCSI ,4 PCI/2 ISA/1 AGP slots, DIMM, Onbrd I/O, UltraDMA PCI IDE, ATX format
- Genuine Intel Pentium® II Processor(s) w/Cooling Fan(s)
- 128MB 168Pin 100MHz 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- 6.4GB Quantum FireBall SE36400S Ultra-SCSI-2 HD
- 32X Speed Internal ATAPI IDE CD-ROM
- Sound Blaster PCI 64 Sound Card
- Intel new I740 AGP 8MB SGRAM Video Card (DVD ready)
- 19" Hitachi NSA SuperScan Pro CM-751U Monitor
- ATX style Medium Tower 235W ATX PS
- KeyTronic 104 Key Win95 PS2 Keyboard
- Microsoft IntelliMouse with Wheel w/ Pad
- Pair of 180Watt Stereo Speakers

Pentium II Single/Dual	
350mhz	$3223/$3872
400mhz	$3439/$4304
450mhz	$3763/$4952

Intel DK440LX PII Dual

- Intel DK440LX Dual Pentium II Motherboard 440LX AGPset - 233Mhz & above Dual CPU support, 440LX AGPset w/ Accelerated Graphics Port Connector for optimal Video Graphics,4 DIMM slots,Onbrd I/O,UltraDMA PCI IDE,onbrd Intel Pro10/100BT Ethernet/Adaptec 7895 Dual Channel SCSI w/ RAIDport slot
- Genuine Intel Pentium® II Processor(s) w/ Cooling Fan(s)
- 128MB 168Pin 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- 6.4GB Quantum FireBall SE36400S Ultra-SCSI-2 HD
- Toshiba XM-6201B 32X Internal SCSI CD-ROM
- Intel new I740 AGP 8MB SGRAM Video Card (DVD ready)
- 19" Hitachi NSA SuperScan Pro CM-751U Monitor
- ATX style Medium Tower 235W ATX PS
- KeyTronic 104 Key Win95 PS2 Keyboard
- Microsoft IntelliMouse with Wheel w/ Pad
- Pair of 180Watt Stereo Speakers

Pentium II Single/Dual	
233mhz	$2621/$2825
266mhz	$2670/$2923
300mhz	$2795/$3172
333mhz	$2933/$3447

for sure continue to do business with UMiracle.

Thank you very much and keep up the good work.

Optional Software O/S Upgrade: (from Windows 95 - $90)

MS DOS V6.22+Windows V3.11(-95)	Add$10
MS DOS V6.22+Windows for WorkGroup V3.11(-95)	Add$30
Windows NT 4.0 Workstation/Server w/5User(-95)	Add$90/$560
MS BackOffice Small Business Server 4.0 w/5 user (-95)	Add$1190
MS Office 97 Small Business Ed./Professional Ed.	Add$199/$550
MS HomeEssential 98 Bundle	Add$95

OneYear Next Business Day Bay Area OnSite	$60
ThreeYear Next Business Day Bay Area OnSite	$150

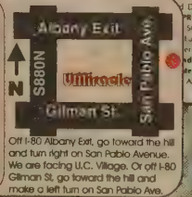
(COMPLETE SYSTEM ONLY - PLEASE CALL FREMONT OFFICE FOR DETAILS)

*** New Intel 350MHz and 400MHz CPUs requires BX Chipset Motherboard and 100MHz DIMM memory**

UMiracle Microsystems
44063 Fremont Blvd Fremont CA94538
Phone:510-226-3666 Fax:510-226-6758
1035 San Pablo Ave#1, Albany CA94706
Phone:510-526-2626 Fax:510-526-0273
1528 Union St. San Francisco CA94123
Phone:415-885-5050 Fax:415-885-5059
URL:WWW.UMIRACLE.COM
Email: sales@umiracle.com

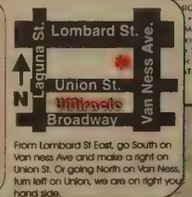
DISCOVER ATM VISA MasterCard

Albany Store
Ph: 510-526-2626
1035 San Pablo Ave. #1
Albany CA 94706
Ph: 510-526-2626
Fax: 510-526-0273
Mon-Sat 9:30AM-6:00PM
CLOSED SUNDAYS



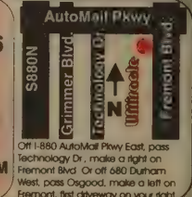
Off I-80 Albany Exit, go toward the hill and turn right on San Pablo Avenue. We are facing U.C. Village. Or off I-80 Gilman St. go toward the hill and make a left turn on San Pablo Ave.

San Francisco
Ph: 415-885-5050
1528 Union Street
San Francisco CA94123
Ph: 415-885-5050
Fax: 415-885-5059
Mon-Sat 9:30AM-6:00PM
CLOSED SUNDAYS



From Lombard St East, go South on Van ness Ave and make a right on Union St. Or going North on Van Ness, turn left on Union, we are on right your hand side.

Fremont Main
Ph: 510-226-3666
44063 Fremont Blvd.
Fremont CA94538
Ph: 510-226-3666
Fax: 510-226-6758
Mon-Sat 9:00AM-6:00PM
CLOSED SUNDAYS



Off I-880 AutoMall Pkwy East, pass Technology Dr, make a right on Fremont Blvd. Or off 680 Durham West, pass Osgood, make a left on Fremont, first driveway on your right.

AND BE A WINNER!

TECHNOLOGY TREND:

Looking a couple of more months down the road and into June or July this year we can expect Intel's new Slot 2 CPUs to be launched. The Slot 2 CPUs will offer an amazing performance increase over Slot 1 PII uses and they will be targeted only to the high end market like servers and high end workstations. The main chipset for these high end CPUs will be the 450NX chipset. It's interesting though that Slot 2 CPUs will also work with the BX chipset. Slot 2 will only come with 100 Mhz front side bus but that also requires 100MHz DIMM.

UPGRADEABILITY

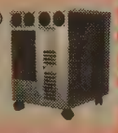
[redacted] is a proprietary design to prevent you from after-market upgrades. It means a drive mounting kit and you have then a CD-ROM. A system [redacted] upgrade the same [redacted] an incredible CPU upgrade unless you buy an expensive card with a new motherboard. [redacted] At UMiracle we have a standard [redacted] everything is interchangeable so save you [redacted] from future upgrades.

LOCAL TECHNICAL SUPPORT

[redacted] of phone support is for [redacted] there is no [redacted] minutes wait to get your [redacted] Every time you're waiting for a support person to [redacted] on the phone and to find the solution you get [redacted] work. Don't you [redacted] of business [redacted] are completely [redacted] when a real [redacted] answer to your [redacted] problem? At UMiracle we guarantee [redacted] a technician on the phone. [redacted] we provide you a [redacted] support [redacted] the fastest possible [redacted]

Intel R440LX PII Server

- Intel R440LX Server Platform Pentium II Motherboard - Dual PII CPU support, 4 DIMM slots, Onbrd I/O, UltraDMA PCI IDE, onbrd Intel Pro 100BT Ethernet, Adaptec 7880 UW SCSI port, Cirrus Logic 5446 1MB onbrd VGA, Hardware Server Mgmt, and LANDesk Server Manager Software for NT and Netware
- Genuine Intel Pentium® II Processor(s) w/CoolingFan(s)
- 256MB 168Pin 10ns SDRAM DIMM
- 1.44MB Floppy Drive
- TWO 4.3GB WD Enterprise UW-SCSI E4360-7 HDs
- 32X Speed Internal ATAPI IDE CD-ROM
- 15" Hitachi NSA SuperScan Pro CM-500U Monitor
- Server Enclosure KS-1400 w/Dual Redundant Hot-Swappable 300Wx2 PowerSupply, Full-Size ATX, 14-5.25" drive bays, 8 Cooling Fans, Dims:(DxWxH) 20.5"x16.25"x23.75"
- KeyTronic 104 Key Win95 PS2 Keyboard
- Microsoft IntelliMouse with Wheel w/ Pad
- Legitimate MS Windows NT V4.0 Server w/5 User Lic + Manual + Installed + Fully-Configured



Single Pentium II	
266MHz	$4008
300MHz	$4133
333MHz	$4269
Dual Pentium II	
266MHz	$4260
300MHz	$4509
333MHz	$4784

MULTIMEDIA NOTEBOOKS

NoteBook Options:		
	MS DOS V6.22 + Windows V3.11	Add$100
	MS DOS V6.22 + WFWG V3.11	Add$120
	Windows 95 CD Full OEM Version	Add$90
	Windows NT 4.0 Workstation	Add$180

SAN FRANCISCO STORE GRAND OPENING!

intel

CHEMBOOK 3300 ■ P5 MMX ■ TX-Chipset ■ Active 12.1" 600x480 ■ onbrd 128KB EDO ■ 256K L2 Cache ■ 1.44FD ■ 20X CDROM ■ 2MB EDO Video ■ TouchPad ■ Stereo Sound ■ CardBus+ZVP ■ USB,1S/1P ports ■ NiMH Batt

Active Matrix 12.1"	(3.0GB/4.0GB)
■Pentium-200MMX	$1410/$1527
■Pentium-233MMX	$1440/$1555

Hard drives/PCMCIA cards

3.0/4.0GB Slim HD	$235/365
5.0GB 2.5" 19mm HD	$620
56K Fax modem	$85
Ethernet NE2000 Comb	$75

CHEM BOOK 6000
Pentium II w/Intel Mobile Module

CHEMBOOK 6000 ■ Pentium II w/IMM ■ BX-Chipset ■ Active 13.3" 1kx768x64k ■ 48MB SDRAM (16 onbrd+32) ■ 512K L2 Cache ■ 1.44FD ■ 20X CDROM ■ 2MB EDO Video ■ TouchPad ■ 3D Stereo Sound ■ S-Video Out ■ USB,1S/1P ports ■ li-ion Battery...

Pentium II w/IMM	(3.0GB/4.0GB)
■Pentium-II 266MHz	$2909/$3023

CHEM 3300 NoteBook Options

16/32MB SDRAM	$50/90
64/128MB SDRAM	$155/$Call
NiMh Battery	$85
AC Adapter	$65

CHEM 9780 NoteBook Options

16/32MB SDRAM	$50/90
64/128MB SDRAM	$155/$Call
Int. VoiceFaxModem 56K	$150
Li-Ion 2nd Battery	$170
Docking Station	$445
Port Duplicator	$175

CHEMBOOK 9780 ■ CPU upto 333MHz MMX ■ 430TX Chipset ■ Active Screen 12.1"/14.1" w/512k Cache ■ Upto 128MB SDRAM ■ Removable 1.44FD ■ 24-Speed CDROM ■ 4MB EDO VRAM ■ Li-ion Battery ■ 3D Surround Stereo Sound ■ Video In/Out ■ USB/1S/1P ■ InfraRed port ...

(3.0/4.0/5.0GB HD)	Active Matrix 12.1"	Active Matrix 14.1"
■ P5-200Mhz MMX+32MB	$1640/$1754/$1981	$2094/$2269/$2496
■ P5-233Mhz MMX+32MB	$1669/$1782/$2008	$2184/$2297/$2524

CHEM 7000 NoteBook Options

16/32MB SDRAM	$50/$90
64/128MB SDRAM	$155/$Call

See WWW.CHEMUSA.COM for details

All trademarks are the property of their respective holders. All prices and specifications are subject to change without notice or obligation. Not responsible for typographical errors. We accept VISA, Mastercard, Discover, ATM, AMEX, personal/company check and EO, with credit approval. No surcharge on credit card purchase.

CHEMBOOK 7000 ■ P5 MMX ■ TX-Chipset ■ Active 15.1" 1kx768 ■ 32MB EDORAM ■ 512K L2 Cache ■ 1.44FD ■ 20X CDROM ■ 2MB EDO Video ■ TouchPad ■ 3D Stereo Sound ■ RCA Jack ■ USB,1S/1P ports ■ li-ion Battery...

Active Matrix 15.1"	(3.0/4.0GB)
■Pentium-200MMX	$2576/$2691
■Pentium-233MMX	$2604/$2720

CHEM BOOK 7000

CHEM BOOK 9780

UMiracle Microsystems
44060 Fremont Blvd. Fremont CA94538
Phone:510-226-3666 Fax:510-226-6758
1035 San Pablo Ave#1. Albany CA94706
Phone:510-526-2626 Fax:510-526-0273
1528 Union St. San Francisco CA94123
Phone:415-885-5050 Fax:415-885-5059
URL:WWW.UMIRACLE.COM
Email: sales@umiracle.com

- NETWORK DESIGN LAYOUT
- PHYSICAL CABLING SERVICE
- SERVER/CLIENT SETUP/CUSTOMIZATION
- WAN/LAN CONNECTIVITY
- INTERNET/EMAIL CONNECTION
- EQUIPMENT SETUP/CUSTOMIZATION
- SOFTWARE DESIGN/INSTALLATION
- POWER AND DATA PROTECTION
- USER/ADMINISTRATOR TRAINING
- EXPERTISE TECHNICAL SUPPORT
- MAINTAINENCE CONTRACT

LOOKING FOR YOUR DREAM MACHINE AT THE CHEAPEST PRICE? SHOPPING FOR A PC IN THIS RAZOR-THIN-PROFIT INDUSTRY IS DANGEROUS BECAUSE 70% OF THE DEALERS WON'T LIVE TILL THE FOURTH YEAR IN BUSINESS, MOST SELL 3 OR 4 MACHINES A WEEK WITHOUT KNOWING WHAT THEY ARE SELLING AND 99% DON'T WANT TO SEE ANY MACHINE COMING BACK AFTER YOU WALK OUT OF THE DOOR. AT UMIRACLE, WE BUILD HUNDREDS OF PC'S EVERY WEEK, WE TEST EVERY POSSIBLE COMBINATIONS OF SOFTWARE AND HARDWARE FOR COMPATIBILITY, AND WE STAND BEHIND YOUR PC'S LIFETIME LONG! WHY? BECAUSE WE LOVE YOUR PC AS MUCH AS YOU DO! COME BY AND VISIT ONE OF OUR STORES AND YOU WILL FIND OUT WHY YOU WILL BE THE WINNER!

Intel Corporation
2200 Mission Col
P. O. Box 58119
Santa Clara, CA
(408) 765-8080

intel

Spade Chan
UMiracle Mic
44063 Fremo
Fremont, CA

UMiracle is t
computer harc
continually sc
have purchase
months, and these products have been very reliable. We have also utilized UMiracle's technical engineering staff in the product choosing process which is very good suggesting a variety of choices and cost effectiveness. We choose UMiracle fo and responsive sales team, knowledgeable technical staff, and overall competit pricing.

10 + ONE NETWORK SOLUTION

- *TEN PCChips AMD-K6 233MHz WorkStations w/Licensed Windows 95 (10x$739)*
- *ONE Intel Dakota DK440LX Pentium II File Server w/ Single 266MHz CPU ($3840) w/25 User Licensed NT4.0 Server* (See Previous Pages for Workstations and Server Configuration Details)
- *ELEVEN Intel EtherExpress 100BaseT PCI Network Interface Adapters Installed (11x$59)*
- *HP LaserJet 4000N Printer w/10BaseT Connection to Server ($1440)*
- *3COM 3C250B-TX 12-Port SuperStackII 100BaseT Stackable Hub ($1115)*
- *APC Smart-UPS 420Net Un-interruptable Power Supply w/ Setup ($240)*
- *Up to 1100' Catalog5 100BaseT UTP Cabling (InWall w/ Plates - 11 Nodes) (11x$60)*
- *OnSite Windows NT WorkGroup Network Resources and Printer Setup (11x$60)*

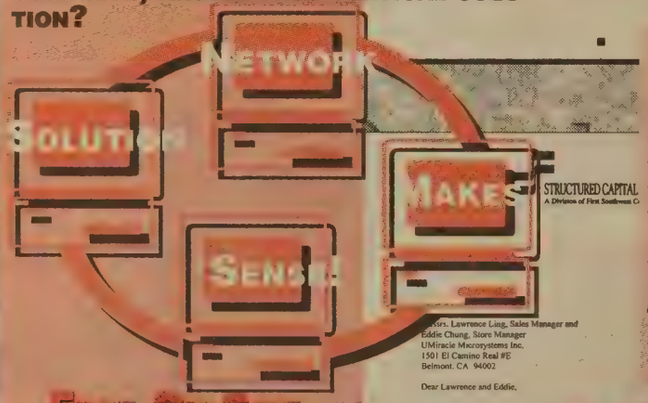
Recommended Options:
- *Internet Access + EMail Solution*
- *Disaster Recovery Backup Solution*
- *Fax Server Solution*
- *Network User + Administrator Training*
- *3 Month 24-Hour Response Service Maintainence Contract*

$15994 or
EQUIPMENT BUSINESSLEASE*
FOR AS LOW AS
*CALL
PER MONTH 48 MONTHS

MIS GUYS, WE KNOW YOU ARE TIRED! YOUR COMPANY DEPENDS ON YOUR NETWORK AND YOUR NETWORK DEPENDS ON YOU! YOU ARE PAYING YOUR CONSULTANT TO EXPERIMENT WITH YOUR HARDWARE! YOUR HARDWARE PROVIDER IS CLAIMING YOUR PROBLEM IS SOFTWARE RELATED BUT YOUR SOFTWARE VENDOR SAYS IT IS NOT! AND YOUR BOSS IS PULLING YOUR HAIR!

YOU THOUGHT IT WAS EASY? WISH YOU HAVE KNOWN THE COMPATIBILITY PROBLEM FOR YOUR NON-RETURNABLE PURCHASE? WISH YOUR CONSULTANT HAVE KNOWN IT ALL?

DON'T YOU KNOW CONSULTANTS COME TO UMIRACLE WHEN THEY NEED HELP?
DON'T YOU KNOW YOU CAN SAVE MONEY BY SKIPPING YOUR VAR?
DON'T YOU KNOW YOU CAN SIT BACK AND RELAX IF UMIRACLE PROVIDES YOU A COMPLETE, HASSLE-FREE VERTICAL SOLUTION?



STRUCTURED CAPITAL
A Division of First Southwest Co

Mrs. Lawrence Ling, Sales Manager and
Eddie Chung, Store Manager
UMiracle Microsystems Inc.
1501 El Camino Real #E
Belmont, CA 94002

Dear Lawrence and Eddie,

I would like to let you know how pleased we have been with UMiracle Microsystems. The quality of your systems, the speed with which you have allowed my firm to run more

My firm is an investment banker reliability of our systems is very low prices as well. Also, the kno

Thanks again for your incredible your boss of the good work you a

Sincerely,

Gregory J. Reiker
Vice President

FREE ON-SITE CONSULTATION
WE SERVE ENTIRE BAY-AREA

UMiracle NETWORK SOLUTION

Call Toll Free Today!
1888-NET-OKAY x161
1888-638-6529

UMiracle Microsystems Corporate Office
44063 Fremont Blvd. Fremont CA 94538
Phone: 510-226-3666 Fax: 510-226-6758

* EQUIPMENT BUSINESS LEASE APPLIES TO EQUIPMENT, CABLING & SETUP LABOR ALTOGETHER. LEASE PAYMENT IS BASED ON $1 PURCHASE PURCHASE OPTION. ONE TIME $75 DOCUMENTATION FEE ARE REQUIRED. TWO ADVANCED PAYMENTS REQUIRED IF APPROVED. TAXES ARE NOT YET INCLUDED. CALL FOR DETAILS

20 + ONE NETWORK SOLUTION

- *TWENTY PCChips 440LX AGP PII 266MHz WorkStations w/Licensed Win95 (20x$1104)*
- *ONE ASUS P2B-DS Single PII 350MHz AGP File Server w/25 User Licensed NT4.0 Server ($4393) with Dual 100BaseT PCI NICs each connected to 100BaseT hub for double thoroughput* (See Previous Pages for Workstations and Server Configuration Details)
- *TWENTY-TWO Intel EtherExpress 100BaseT PCL Network Interface Adapters Installed ($1298)*
- *HP LaserJet 4000N Printer w/10BaseT Connection to Server ($1440)*
- *TWO -3COM 3C250B-TX 12-Port SuperStackII 100BaseT Stackable Hubs ($2230)*
- *APC Smart-UPS 620Net Un-interruptable Power Supply w/ Setup ($300)*
- *Up to 2100' Cat5 100BaseT UTP Cabling (InWall w/ Plates - 21 Nodes) (21x$60)*
- *OnSite Windows NT WorkGroup Network Printer and Resources Setup (21x$60)*

Recommended Options:
- *Internet Access + EMail Solution*
- *Disaster Recovery Backup Solution*
- *Fax Server Solution*
- *Network User + Administrator Training*
- *6 Month 24-Hour Response Service Maintainence Contract*

$34261 or
EQUIPMENT BUSINESSLEASE*
FOR AS LOW AS
*CALL
PER MONTH 48 MONTHS

40 + ONE NETWORK SOLUTION

- *FORTY Intel Seattle SE440BX Pentium II 350MHz WorkStations w/Licensed Win95 (40x$$2146)*
- *ONE Intel R440LX Dual Pentium II 300MHz File Server w/45 User Licensed NT4.0 Server ($6379)* (See Previous Pages for Workstations and Server Configuration Details)
- *FORTY Intel EtherExpress 100BaseT PCI Network Interface Adapters Installed (40x$59)*
- *ONE HP LaserJet 5SiMX 100Kpage Monthly DutyCycle •Network Printer ($3580)*
- *FOUR 3COM 3C250B-TX 12-Port SuperStackII 100BaseT Stackable Hubs (4x$1115)*
- *APC Smart-UPS 1000Net Un-interruptable Power Supply w/ Setup ($480)*
- *Up to 4100' Catalog5 100BaseT UTP Cabling (41x$60) (InWall w/ Plates - 41 Nodes plus Wiring Rack)*
- *OnSite Windows NT WorkGroup Network (41x$60) Printer & Resources Setup*

Recommended Options:
- *Internet Access + EMail Solution*
- *Disaster Recovery Backup Solution*
- *Fax Server Solution*
- *Network User + Administrator Training*
- *12 Month 24-Hour Response Service Maintainence Contract*

$108019 or
EQUIPMENT BUSINESSLEASE*
FOR AS LOW AS
*CALL
PER MONTH 48 MONTHS

INTERNET ACCESS+EMAIL SOLUTION

INTERNET PROVIDES POWER TO BUSINESS USERS LIKE YOU! EXPLORING YOUR IDEA, GO TO INTERNET! RESEARCHING YOUR PROJECT, GO TO INTERNET! MAKING AN INTERNATIONAL CALL, GO TO INTERNET! ONCE YOU HAVE IT, YOU WILL HOOK ON IT. AND TO HOOK ON IT CHEAP, YOU NEED ISDN INTERNET ACCESS FROM UMIRACLE. WE WILL SETUP YOUR ISDN LINE, GET YOU THE RIGHT ROUTER, SETUP YOUR ISP ACCESS ACCOUNT, SETUP YOUR EMAIL ADDRESSES, CONFIGURE YOUR NETWORK WITH TCPIP PROCOTOL, ALL FOR ONE PACKAGE PRICE! PLEASE CALL 1888-NET-OKAY x 161 FOR DETAILS! (SOFTWARE+HARDWARE+ISP+SETUP LABOR)

FAX SERVER SOLUTION

DON'T WAIT IN LINE FOR YOUR TURN TO FAX, DON'T HAND-WRITE YOUR COVER PAGE! FAX DIRECTLY FROM YOUR DESKTOP, NEATLY AND PROFESSIONALLY! WITH THE RIGHT FAX SOLUTION, YOU CAN RECEIVE YOUR FAX AND PRINT RIGHT TO YOUR LASER PRINTER, REPRINT YOUR 6 MONTHS OLD FAX, FAX YOUR DOCUMENTS FROM YOUR WINDOWS APPLICATION JUST LIKE PRINTING. ALL VIA ONE LINE, ONE MODEM! FORGET ABOUT BRINGNG A LINE AND A MODEM TO EVERY DESKTOP! WITH SOPHISTICATED FAX SERVER SOFTWARE AND UMIRACLE NETWORK SOLUTION TECHNICAL EXPERTISE, WE SURE CAN GET YOU THE BEST SOLUTION! PLEASE CALL 1888-NET-OKAY x 161 FOR DETAILS! (SOFTWARE+HARDWARE+SETUP LABOR)

DISASTER RECOVERY BACKUP SOLUTION

YOU THINK YOU GOT IT ALL BACKED UP? NOT UNTIL THE DAY YOUR SERVER CRASHES YOU WILL FIND OUT YOU HAVE TO 1.) TROUBLESHOOT AND REPLACE YOUR DEFECTIVE COMPONENTS, 2.) RELOAD YOUR NOS, DRIVERS, APPLICATIONS AND BACKUP SOFTWARE, 3.)RESTORE YOUR DATA FILES FROM BACKUP, 4.)RECONSTRUCT YOUR USER AND PRINTER ACCOUNTS, AND 5.)EXPECT MISSING AND CORRUPTED DATA HERE AND THERE! WHY? BECAUSE YOUR BACKUP SOFTWARE BACKS UP ONLY DATA FILES, NOT THE OPENED FILES, NOT THE SECURITY DATABASE NOR THE PARTITION INFORMATION! BACKUP SOFTWARE DON'T MAKE SENSE UNTIL NOW! WITH REPLICA V3 BY STAC, YOU CAN BACKUP YOUR HARDDRIVE PARTITIONS AS OBJECTS, RESCUE YOUR DISASTER WITH A REBOOT FROM A RECOVERY DISK, EVEN FROM A LOW-LEVEL-FORMATED HARDDRIVE, AND BRING YOUR SERVER UP IN HOURS! TO FIND OUT HOW WE CAN PROVIDE THIS SOLUTION, PLEASE CALL 1888-NET-OKAY x 161 FOR DETAILS! (SOFTWARE+HARDWARE+SETUP LABOR)

WE MONITOR THE TRENDS OF EVERY TECHNOLOGY IN THE INDUSTRY AND GET YOU THE BEST! GUARANTEE WE WILL TAKE IT BACK IF IT DOESN'T WORK!

* EQUIPMENT BUSINESS LEASE APPLIES TO EQUIPMENT, CABLING & SETUP LABOR ALTOGETHER. LEASE PAYMENT IS BASED ON $1 PURCHASE PURCHASE OPTION. ONE TIME $75 DOCUMENTATION FEE ARE REQUIRED. TWO ADVANCED PAYMENTS REQUIRED IF APPROVED. TAXES ARE NOT YET INCLUDED.

SAN FRANCISCO STORE GRAND OPENING!

Motherboard without CPU: (Call for CPU Prices)

PCCHIPS SIS TXPro-II Pentium Motherboard 512K Cache- onbrd Sound Pro Audio, 72+168pin Dimm, Onbrd VGA sharing main board memory (upto 4MB), High-Spd I/O, FD, IDE, AT Form $110
PCCHIPS 440LX Chipset Pentium II Motherboard - onbrd Sound Pro Audio, 72+168pin Dimm, bundled with 4MB AGP SIS Video card, High-Spd I/O, FD, IDE, AT Form $160
A-BIT TX-5 512K TX Pentium/AMD K5/K6 DIMM+SIMM supported, Jumperless, onbrd PCHDE, I/O, FD, AT Form (AX-5 in ATX Form) ..... $88($95)
A-BIT LX-6 Pentium II Jumperless 440LX Motherboard, 168Pin DIMM, 1AGP +4 PCI+3 ISA slots, onbrd UIDE, I/O, FD, USB, Soft-Menu, ATX Form $130
A-BIT BX6 Pentium II 350MHz/400MHz Jumperless 440BX 100MHz Bus Motherboard, 168Pin DIMM, 1AGP +4 PCI+3 ISA slots, onbrd UIDE, I/O,FD,USB,Soft-Menu,ATX Form $175
ASUS TX97(L) 430TX Chipset, 512K, Pentium/AMD CPUs, 4 PCI+4 ISA, 168Pin DIMMx3, onbrd UIDE, I/O, AT form factor $125
ASUS TX97-E(L) same as TX97 w/168Pin DIMMx2+72PinSIMMx4 support . $130
ASUS TX97-X(L) same as TX97 w/CreativeLabs Audio, ATX form factor .. $155
ASUS TX97-XE(L) same as TX97-X w/•DIMMx2+72PinSIMMx4 supt $160
ASUS P2L97 Intel Pentium II motherboard - 233-333Mhz support, 440LX AGPset, 5 PCI/2 ISA/1 AGP slots, DIMM, Onbrd I/O, UltraDMA PCI IDE, ATX format $155
ASUS P2L97-S same as P2L97, plus onbrd Adaptec 7880 U-Wide SCSI ... $235
ASUS P2L97-DS same as P2L97, plus onbrd Adaptec 7880 U-Wide SCSI and Dual Pentium II CPU support $380
ASUS P2B/• Intel Pentium II BX chipset motherboard - 233-333Mhz support, 440LX AGPset, 5 PCI/2 ISA/1 AGP slots, DIMM, Onbrd I/O, UltraDMA PCI IDE, ATX format $190
ASUS P2BD/P2B-S/P2B-L/P2B-LS/P2B-DS BX Chipset Boards ..... $360/$342/$252/$390/$492
Intel Atlanta AL440LX Pentium II Motherboard - 233Mhz & above CPU support, 440LX AGPset, Yamaha OPL4 Audio,3 PCI/2 ISA/1 AGP slots, DIMM, I/O, UltraDMA PCI IDE, ATX format $170
Intel Dakota DK440LX Dual-Pentium II Motherboard - 233Mhz & above Dual CPU support, 440LX AGPset,4 DIMM slots,Onbrd I/O,UDMA PCI IDE, onbrd Intel Pro100BT Ethernet and Adaptec 7895 Dual SCSI w/RAIDport $525
Intel R440LX Server Platform Pentium II Motherboard - Dual PII CPU support, 4 DIMM (ECC 72Bit SDRAM) slots, Onbrd I/O, UltraDMA PCI IDE, onbrd Intel Pro 100BT Ethernet, Adaptec 7880 UW SCSI port, Cirrus Logic 5446 1MB onbrd VGA, Hardware Server Mgmt, and LANDesk Server Manager Software for NT and Netware $545
Intel Seattle SE440BX Chipset 66MHz/100MHz FrontSide Bus Pentium II Motherboard supporting 350MHz (100x3.5),400MHz (100x4) newest PII CPUs , AGP,Crystal Full-Duplex 16bit Sound, 2 ISA/4 PCI/AGP slots, 3 DIMM Slots upto 384MB, I/O, U-DMA PCI IDE, ATX format $235

Intel Pentium® II processor 233MHz/266MHz/300/333MHz 512KCache .. $Call
Intel Pentium® II Deschutes (100MHz Bus) processor 350/400/450MHz ..... <$590/$790/$Call
Intel Pentium® II Celeron Pentium II based processor ..... $Call
Pentium® 166/200/233MHz MMX CPU ..... $Call
AMD K5/K6 (3D)/Cyrix®6x86MX CPU ..... $Call
72Pin SIMM /168Pin DIMM/SDRAM/EDO/ECC/EEPROM ..... $Call
168Pin DIMM 100MHz Bus for BX Chipset 32M(ECC)/64M(ECC)/128M(ECC) ..... <$80(95)/$150(190)/$320(375)

I/O Card/Controller Card:

RaidPort AR01130 with 1MB Cache Hardware Raid 5 for intel boards . . $320
Adaptec 2940U Ultra SCSI/2940UW SCSI Controller ..... $145/$175
Adaptec NEW 2940U2W Ultra2 SCSI PCI Controller $410
Adaptec AAA-131/AAA-133 RAID 5 Ultra-Wide SCSI-2 Multi-Channel Host Adaptor w/1MB Cache onbrd ..... $419/$619
Diamond Fireport 40 UW-SCSI PCI Controller Single/Dual Channel . $160/260

Network Card:

Ethernet NE2000 ISA PnP/Softset 16Bit Combo/PCI Combo ..... $20/$25
Intel EtherExpress Pro 10/100 PCI ENET 32Bit 10-BT $59
3COM Etherlink III 3C509B Combo $65
3COM Etherlink XL 3C900 Parallel-Tasking PCI Combo $75
3COM Fast Etherlink XL 3C905-TX Parallel-Tasking 100BT PCI $65

Video Card:

Trident 9685 Windows Accelerator PCI 2MB $35
Trident 9750 3D Windows Accelerator AGP 4MB SGRAM $59
Intel i740 Chipset 8MB x2 AGP Video Card $99
ATI All-In-Wonder PRO - PCI 4MB/8MB AGP 4MB/8MB $220/270/220/270
ATI Xpert@Work OEM - PCI 4MB/8MB AGP 4MB/8MB $122/163/122/163
ATI Xpert@Play OEM - PCI 4MB/8MB AGP 4MB/8MB $140/185/157/195
ATI 4MB memory upgrade for All-In-Wonder/@Work,@Play $40
ATI 3D Charger EDO DRAM AGP 2MB/4MB ..... $60/$75
Matrox MGA Millennium II WRAM AGP/PCI 4MB/8MB ..... $151/$208
Memory module for Millennium II 4MB/8MB/12MB ..... $85/$170/$235
Matrox MGA Mystique 220 2MB/4MB SGRAM OEM $75/99
Maxtrox Productiva G100A SDRAM AGP 4MB/8MB ..... $75/$90
Diamond Stealth 3D 2000 Pro PCI 2MB/4MB EDO DRAM ..... $50/$69
Diamond Stealth 3D 4000 AGP 2MB/4MB SGRAM ..... $65/$79
Diamond VIPER V330 PCI/AGP 4MB SGRAM $155
Diamond FIRE GL1000 Pro 4/8MB, 2/3DLabs Permedia2 Chpst ..... $145/$180
Creative Labs 3D Blaster VooDoo2 12MB 3D Accelerator $275

Monitor:

14" ShamRock 1Kx768Nlx0.28DP Digital Control Pwr-Saving Monitor $132
15"/17" ShamRock 1280x1KNlx0.28DP Monitor ..... $179/$325
Hitachi NSA SuperScan Pro CM-500U 15" .28DP,1280x1024 ..... $289
Hitachi NSA SuperScan Pro CM-620U 17" .28DP,1280x1024 ..... $495
Hitachi NSA SuperScan Elite CM-630U 17" .22DP,1600x1280x69Hz $615
Hitachi NSA SuperScan Pro CM-751U 19" .22DP,1600x1200@75Hz $844
Hitachi NSA SuperScan Supreme CM-752U 19" .22DP,1.6kx1.2k@80Hz $1000
Hitachi NSA SuperScan Pro 800 21" .22DP,1600x1200x75Hz $1200
Hitachi NSA SuperScan Elite 802/802Plus 21" .22DP,1600x1280 .. $1199/$1350
Hitachi NSA SuperScan Supreme 803 21" .22DP,1800x1440 77Hz $1530
IIYAMA VisionMaster-17 MF-8617E 17" $505
IIYAMA VisionMaster-Pro 17 MT-9017E 17" Diamondtron Tube $545
IIYAMA VisionMaster 450 S-901GT 19" $765
IIYAMA VisionMaster-Pro 21 MT-9021E 21", Diamondtron $1085
IIYAMA VisionMaster-Pro 500 MT-9221 21", Diamondtron $1115
Sony 15"-100ES/100GS 17"-200ES/200GS/200PS 19"-400PS 21"-500PS ..... $315/$360/$595/$655/$800/$1000/$1655
Viewsonic E641/E655/15GA/15GS/17EA/17GA/17PS/PT770/PT775/GT770/G800/G810/PT813/G810/GT800/29GA/P810/P815/etc ..... $Call
NEC A500/E500/A700/E700 ..... $263/$330/$465/$655

Modem:

Diamond Supra Max 56K V.90 Internal PCI Fax Voice card $90
USR Sportster 33.6K Faxmodem Internal/External ..... $79/$97
USR Sportster 56K Faxmodem Internal/External ..... $133/$151
USR Sportster 56K Voice Faxmodem Internal/External ..... $153/$168
USR Sportster 56K V.90 Voice Faxmodem w/Spkfone Extrnl USB ready ... $Call

Floppy Drive/Tape Backup:

Floppy Drive 1.44M 3.5"/Teac 1.2M 5.25"/1.44M 3.5" ..... $20/$45/23
Colorado 3.2GB T-3000 off floppy Travan w/Win95 Sftwre, w/tape $155
Colorado HP T4i 8GB, 62MB/min, SCSI-2, Travan TR-4, Int., w/tape $355
Colorado HP 5GB, IDE, 648K/s, 55MB/min, 2.5Gb native/5GB compressed, Travan TR-4, Int., w/tape $199
Colorado HP 5GB Travan Tape 1pack/2pack/5pack ..... $26/$50/$120
A:Drive LS-120MB Super FDrive 5X1.44FD spd, read/write 1.44MB $120
Iomega ZIP Drive 100MB w/disk ATAPI IDE -Internal $85
Iomega ZIP Drive 100MB w/disk SCSI-Internal/External ..... $115/$130
Iomega ZIP PLUS Drive 100MB w/disk SCSI /Parallel External $185
Iomega ZIP Disks single/three/six/ten pack ..... $17/$41/$75/$110
Iomega Jaz 1GB w/disk SCSI-Internal/External ..... $258/$270
Iomega Jaz 1GB Disks single/three pack ..... $112/$266
Iomega Jaz 2GB w/disk SCSI-Internal/External ..... $490/$515
Iomega Jaz 2GB Disks single/three pack ..... $146/$385
Tape Cartridge (1/2/5pack) TR1/3/4 . ($24/46/112)($31/60/149)($35/68/167)
4mm DAT tape DDS1-90M/DDS2-120M/DDS3-125M ..... $6/$12/$24

KeyBoard/Mice:

Mitsumi/KeyTronic104 Enhanced Win95 Keyboard ..... $12/$21
Focus 2001 104 Win95 Key Enhanced Click w/Cover $33
Natural Keyboard SK-6000 Win95 Key Enhanced/with Touch Pad ... $30/$49
MicroSoft Natural ELITE OEM Keyboard V2.0 for Win95/NT $53
MicroSoft Intellimouse with Wheel Serial/PS2 (with System ONLY) $25
Logitech FirstMousePlus with Wheel Serial/PS2 ..... $18
Logitech MousemanPlus 4 Button with Thumb+Wheel Serial/PS2 ..... $52
Logitech Cordless MousemanPro Serial/PS2 ..... $52
Logitech Trackman Marble/Trackman Marble FX Serial/PS2 ..... $68/$84

Software:

MS DOS 6.22/Windows V3.11/WFWG V3.11(w/System) $45/55/75
MS Windows 95 CD OSR2.5 /NT V4.0 Workstation w/IE4(w/System) $90/$180
MS Windows NT V4.0 Server with 5 User/25User License OEM $650/1350
MS BackOffice Small Business Server 4.0 with 5 Access License OEM .. $1280
MS Office 97 Small Business Ed./Professional Ed. ..... $199/$550
MS HomeEssential 98 - Word97/Works 97/Money98/Encarta98 Encyclopedia Std/Greeting Workshop/InternetExplorer3.02 ..... $95
Tegam Anti-V for Windows 95 Single User $65

Chassis/PowerSupply/Misc:

ATX Mid Tower Chassis with 230W ATX Power Supply $65
GigiStar Series Medium/Full Tower 250W ATX ..... $70/$89
GigiStar Series Mini Tower/DeskTop AT 230W ..... $40/$45
Server Enclosure KS-1400 w/ Dual Redundant Hot-Swappable 300Wx2 PowerSupply, Full-size AT, Baby AT, oversize AT based boards,14-5.25" drive bays, Twelve slots, "snap-in" drive rails, 8 cooling fans, Dims: (DxWxH) 20.5"x16.25"x23.75" $910
RAID Drive Enclosure KS-1000 w/ Dual Redundant Hot-Swappable 300Wx2 PS, 10 Half-Height 5.25" or 5 Full height 5.25" Front Access Drive Bays, 2 Blow-out Fans, Heavy-Duty All-Steel construction Dims: 19.5" x 10" x 24" (DxWxH) $699
Kingston DataSilo Steel 9-Bay Tower- world's most rugged & reliable harddrive enclosure, 9 half-height, 300W load sharing hot swappable Power supplies(2), hot-swappable fans, with UWide SCSI connections(mf#DS500-S9TW) $1189
Kingston DataExpress Steel Enclosures for half-height bays for DataSilo Enclosure (mf#DE100I-SW) $159
Deluxe External SCSI Case w/Terminator+SCSI Cable+P/S+Fan 3.5" Half Height/5.25" Half Height ..... $60/$90
Deluxe External SCSI Case w/68Pin Wide/Ultra Wide SCSI Connector + P/S + Fan 3.5" Half Height with 68Pin External Cable and Terminator $150

CD-ROM Drive:

Toshiba XM-6102B 24X Speed Internal ATAPI IDE CD ROM $65
Toshiba XM-6202B 32X Speed Internal ATAPI IDE CD ROM $75
Mitsumi 24X VariableSpeed Internal ATAPI IDE CD-ROM $62
Mitsumi 32X VariableSpeed Internal ATAPI IDE CD-ROM $72
Liton 32X Speed Internal ATAPI E-IDE CD ROM $50
Toshiba XM-6201B 32X Speed Internal SCSI CD ROM $95
Plextor UltraPlex 14/32XSpeed, 2100-4800Kb/sec, Fast SCSI2, 95ms seek, 512K Buffer, SCAM, w/Tray, PX-32TSI Internal $189
DVD/CD Recorder/Re-Writer Internal/External ..... $Call

Sound Card/Speaker/MultiMedia Package:

Yamaha, Altec Lansing, Bose, Sony Speakers ..... $Call
100W/180W/240W(RMS) HI-FI Amplified Stereo Speakers $15/25/40
3D Stereo Sound Card w/ Wavetable, Full Duplex, 16Bit $20
Sound Blaster 16 PnP OEM $39
Sound Blaster AWE64 PnP Value OEM $70
Sound Blaster AWE64 GOLD PnP w/ IDE interface Retail $169
Sound Blaster PCI 64 ..... $99

HardDisk:

Maxtor - DiamondMax 2160

4.3GB ULTRA DMA IDE 84320D4 <9.7ms, 33.3Mb/s 256KB, 5200RPM $155
6.4GB ULTRA DMA IDE 86480D6 <9.7ms, 33.3Mb/s 256KB, 5200RPM $218
8.4GB ULTRA DMA IDE 88400D8 <9.7ms, 33.3Mb/s 256KB, 5200RPM $290

SamSung - VG series

3.4GB ULTRA DMA IDE VG33402A 512KB, 5400RPM, 10ms, SMART $135
4.3GB ULTRA DMA IDE VG34323A 512KB, 5400RPM, 10ms, SMART $147
6.4GB ULTRA DMA IDE VG36483A 512KB, 5400RPM, 10ms, SMART $200

Western Digital - Caviar

2.5GB IDE WDAC22500 - UltraDMA 33.3Mb/s 256KB 9.5ms 5400RPM $135
3.2GB IDE WDAC23200 - UltraDMA 33.3Mb/s 256KB 9.5ms 5400RPM $148
4.3GB IDE WDAC24300 - UltraDMA 33.3Mb/s 256KB 9.5ms 5400RPM $177
6.4GB IDE WDAC36400 - UltraDMA 33.3Mb/s 256KB 9.5ms 5400RPM $235
2.1GB UltraWide SCSI-2 Enterprise E2170-7 512KB 7200RPM $369
4.3GB UltraWide SCSI-2 Enterprise E4360-7 512KB 7200RPM $489
9.1GB UltraWide SCSI-2 Enterprise E9100-7 512KB 7200RPM $820

Quantum

2.1GB FireBall SE32100A EIDE UltraDMA 9.5ms, 5400RPM $138
3.2GB FireBall SE33200A EIDE UltraDMA 9.5ms, 5400RPM $168
4.3GB FireBall SE34300A EIDE UltraDMA 9.5ms, 5400RPM $187
6.4GB FireBall SE36400A EIDE UltraDMA 9.5ms, 5400RPM $238
8.4GB FireBall SE38400A EIDE UltraDMA 9.5ms, 5400RPM $330
2.1GB FireBall SE32100S Ultra-SCSI 9.5ms, 5400RPM $199
3.2GB FireBall SE33200S Ultra-SCSI 9.5ms, 5400RPM $240
4.3GB FireBall SE34300S Ultra-SCSI 9.5ms, 5400RPM $280
6.5GB FireBall SE36400S Ultra-SCSI 9.5ms, 5400RPM $330
8.4GB FireBall SE38400S Ultra-SCSI 9.5ms, 5400RPM $469

Seagate

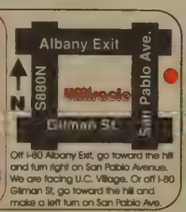
4.55GB Barracuda 4XL ST34572N Ultra SCSI-2 50pin 7200RPM, 512K $485
4.55GB Barracuda 4XL ST34572W UWide SCSI-2 68pin 7200RPM, 512K .. $495
9.1GB Barracuda9 ST19171N Ultra SCSI-2 50pin 7200RPM, 512K $755
9.1GB Barracuda9 ST19171W UWide SCSI 68pin 7200RPM, 512K $775
4.55GB Cheetah AV ST34501N Ultra SCSI-2 8.5MS,10000RPM $580
4.55GB Cheetah AV ST34501W UWide SCSI 68pin 7.5MS,10000RPM $685
9.1GB Cheetah AV ST19101N Ultra SCSI-2 7.5MS, 10000RPM $930
9.1GB Cheetah AV ST19101W UWide SCSI 7.5MS,10000RPM $945

PC UPGRADES & SERVICE WELCOME! OUR TECHNICAL EXPERTS CAN TROUBLESHOOT YOUR PROBLEMS SUPER FAST!

UMiracle
UMiracle Microsystems
44063 Fremont Blvd. Fremont CA94538
Phone:510-226-3666 Fax:510-226-6758
1035 San Pablo Ave#1. Albany CA94706
Phone:510-526-2626 Fax:510-526-0273
1528 Union St. San Francisco CA94123
Phone:415-885-5050 Fax:415-885-5059
URL:WWW.UMIRACLE.COM
Email: sales@umiracle.com

DISCOVER ATM VISA MasterCard

Albany Store
Ph: 510-526-2626
1035 San Pablo Ave. #1
Albany CA 94706
Ph: 510-525-2626
Fax: 510-526-0273
Mon-Sat 9:30AM-6:00PM
CLOSED SUNDAYS



Off I-80 Albany Exit, go toward the hill and turn right on San Pablo Avenue. We are facing U.C. Village. Or off I-80 Gilman St, go toward the hill and make a left turn on San Pablo Ave.

San Francisco
Ph: 415-885-5050
1528 Union Street
San Francisco CA94123
Ph: 415-885-5050
Fax: 415-885-5059
Mon-Sat 9:30AM-5:00PM
CLOSED SUNDAYS

From Lombard St East, go South on Van ness Ave and make a right on Union St. Or going North on Van Ness, turn left on Union, we are on right you hand side.

Fremont Main
Ph: 510-226-3666
44063 Fremont Blvd.
Fremont CA94538
Ph: 510-226-3666
Fax: 510-226-6758
Mon-Sat 9:00AM-5:00PM
CLOSED SUNDAYS

Off I-880 AutoMall Pkwy East pass Technology Dr. make a right on Fremont Blvd. Or off 680 Dunham West, pass Osgood, make a left on Fremont, first driveway on your right.

COMPU-D
International, Inc.
800-929-9333
www.compu-d.com

Apple
PB.G3/292
750/292, 64/8GB, CD, 56K
$4,995

NEW PB. G3/250	PPC750	4GB	32MB	20xCD	$3,955
NEW PB. G3/233	PPC750	2GB	32MB	20xCD	$2,145
PowerBook 3400C	603e/240	3GB	16MB	12xCD	$1,995
PowerBook 5300CS	603e/117	500MB	8MB	.....	$695
PowerBook 5300CS	603e/117	2GB	16MB	.....	$1,045
PowerBook 2400C	603e/180	1.3GB	16MB	.....	$1,395
PowerBook 1400CS	603e/166	1.3GB	16MB	12xCD	$1,395
PowerMac G3 Minitower	300MHz 128/2x4GB SCSI, CD, 8MB				$3,945
PowerMac G3 Minitower	300MHz 64/4GB SCSI, CD, 6MB				$2,885
PowerMac G3 Desktop	233MHz 32/4GB, 24xCD				$1,385
PowerMac G3 Minitower	233MHz 32/4GB, CD, 56K				$1,645
PowerMac G3 Desktop	266MHz 32/4GB, CD, Zip				$1,645
PowerMac G3 Minitower	266MHz 32/6GB, CD, Zip				$1,995
PowerMac G3 Minitower	266MHz 128/4GB, CD, 8MB				$2,945
PowerMac 4400/200Dos	603e/200	2GB	32MB	12XCD	$995
PowerMac 8600/300	604e/300	4GB	32MB	24XCD	$1,745
PowerMac 9600/300	604e/300	4GB	64MB	24XCD	$2,095
PowerMac 9600/200MP	604e/200	4GB	32MB	12XCD	$1,795

COMPAQ
Armada 4131T
P133, 16/1.4GB, 12.1" TFT
$1,150

Armada 7790DMT	P233MMX	32/5GB, CD	13.3"TFT	$3,295
Armada 7770DMT	P233MMX	32/3GB, CD	12.1"TFT	$2,595
Armada 7750MT	P166MMX	16/2.1GB	12.1"TFT	$2,195
Armada 7330T	P150MMX	16/2GB	12.1"TFT	$1,325
Armada 4220T	P266MMX	32/4GB, CD	12.1"TFT	$2,295
Armada 4150	P150MMX	16/1.6GB	12.1"DSTN	$1,045
Presario 1622	P233MMX	32/3.2GB, CD	12.1"DSTN	$1,695
Presario 1220	200MHz	32/2.1GB, CD	12.1"DSTN	$1,575
LTE 5280	P120	16/1.3GB, CD	11.3"TFT	$1,045

17" FS 17inch SVGA Hi Res Monitor $395

Authorized Reseller & Service Center
TOSHIBA
T-510CDT P133, 16/2.1GB, 12.1" TFT, 10xCD
$1,095
3 year warranty

Libretto 50CT	P75	16/770MB	6.1"TFT	$699
Libretto 70CT	P120	16/1.3GB	6.1"TFT	$1,295
Libretto 100CT	P166MMX	16/1.35GB	7.1"TFT	$1,995
T-300CT	P166	32/1.51GB	10.4"TFT	$1,295
T-320CDS	P233MMX	32/4GB	12.1"DSTN	$1,795
T-320CT	P266MMX	32/4GB	10.4"TFT	$3,195
T-470CDT	P233MMX	32/2GB	12.1"Active	$2,095
T-550CDT	P266MMX	32/4GB	12.1"TFT	$2,795
T-730CXDT	P150MMX	16/2.1GB	12.1"TFT	$1,415
T-740CDT	P166MMX	16/3.0GB	13.3"TFT	$1,975
T-750CDM	P233MMX	32/4.7GB	13.3"TFT	$4,250
T-750DVD	P233MMX	32/4.7GB	13.3"TFT	$4,450
T-750DVD	P266MMX	32/8GB	13.3"TFT	$5,195

T-220CDS* P133MMX, 16/1.35GB, 12.1" DSTN, 10xCD $845
T-440CDT* 12.1" TFT, 10xCD $1,145

HEWLETT PACKARD Printers

Laser 5MP/5MPN	$2,295/2,575
Laser 5000/5000N/5000GN	$1,395/1,845/2,475
LaserJet 5/5M/5N/5M*	$895/1,275/1,095/1,195
LaserJet 4V/4MV 16ppm, 11x17"	$1,275/1,875
LaserJet 4V*/6L	$1,199/339
LaserJet 5P/5P GPX/6MP	$595/670/685/815
EPSON 1160/1160 3000 Stylus	$299/319/649

Blowout
LaserJet 4000 Series 17ppm, 1200dpi
4000/4000N $1,595
4000 $1,875
4000N/4000TN $1,995/2,325
4000TN/4000SE $1,475/1,825

DHL FedEx Same Day Shipping

Tel:(818)-787-1054

continued from page 106

Only Great Plains Dynamics, Impact Encore, SBT Pro, and Solomon create a log recording the time of each user access. All but MAS 90 and SBT Pro allow single character passwords. After analyzing how each package implements password protection, the report concludes that, "Little serious effort was devoted to their design."

The investigators were gratified that Visual Accounting encrypts data files, which none of the other programs do. Impact Encore stores data in ASCII format, making it vulnerable to intruders. Most programs files are compiled to protect against someone tampering with the program; however, Impact Encore and Traverse program files are not. The investigation of data security concludes, "Failure by this segment of the accounting software industry to include encryption is a significant shortcoming."

Regarding input controls, most of the programs include routines that validate data and check for reasonableness of data entry. Great Plains, for example, allows reasonableness limits to be set by the user and by the system administrator. MAS 90 and Traverse provide no administrator controls.

The report's strongest criticism came in response to processing controls:

To our surprise, all packages except MAS 90 permit printing of financial statements even when unposted transactions exist...All except MAS 90, Solomon, Traverse and Visual Accounting permit closing the general ledger with no warning even though financial statements have not been printed.

This can result in incomplete reports, and weak accounting controls.

Selecting accounting software suitable for your business is a difficult and time consuming task. While every program has limitations, a particular technical shortcoming might not matter to you, or maybe you can work around it. The important thing is to identify program limitations at an early stage of the selection process, and then evaluate how they would affect your business. ◆

Copyright © 1998 by David A. Simon, CPA. All rights reserved.

The authors and publisher assume no responsibility for use or content of this article. Your professional tax or legal advisor should be consulted on such matters as they apply to your situation.

Complimentary Reprints:

The following is available free of charge from David Simon's office at (510)893-5753.

Harley M. Courtney, Cheryl L. Prachyl, Terryann Glandon, "Guide To Accounting Software," *Journal of Accountancy*, Vol. 185, No. 3, pp. 44-61 (March 1998).

Resources:

AccPac for Windows
ACCPAC International
1-800-773-5445
www.accpac.com

Great Plains Dynamics
Great Plains Software, Inc.
1-800-456-0025
www.gps.com

Impact Encore
Syspro Impact Software, Inc.
1-800-369-8649
www.impactsoft.com

MAS 90 for Windows
State of the Art, Inc.
1-800-845-3415
www.sota.com

Progression
Macola Inc.
1-800-468-0834
www.macola.com

SBT Pro Series
SBT Corp.
1-800-944-1000
www.sbt.com

Solomon IV for Windows
Solomon Software, Inc.
1-800-4-SOLOMON
www.solomon.com

Traverse
Open Systems, Inc.
1-800-328-2276
www.osas.com

Visual Accounting for Windows
RealWorld Corp.
1-800-678-6336
www.realworld.com

Platinum for Windows
Platinum Software Corp.
1-800-999-1809

Advertise in *MicroTimes* Classifieds and Let Us Help Your Business GROW. We Offer Advertisers:

- **Over 128,000 Copies Distributed in Northern California**
- **A Range of Sizes and Prices to Meet Your Needs**

MicroTimes CLASSIFIEDS

With *MicroTimes* Classifieds, Find What You Need FAST. We Offer Computer Consumers:

- **Over 200 Advertisers to Choose From**
- **Convenient Organization by Category for Quick Comparison**
- **Hard-To-Find Specialty Services**
- **Great Deals on Hardware, Software, and Accessories**
- **Career Opportunities**

Bar Coding 192
Data Conversion 192
Data Recovery 192-193
Duplication Hardware 193
Hardware 193
Hardware Wanted 193-194
Internet 194-195
Media Duplication 195-196
Media Supplies 198
Printer & Computer Supplies 195
Repairs 198-201

Consultants' Network –
General 202
LAN 203
Programming 202-203

Career Marketplace –
Career Opportunities 203-205
Training 205-208

Deadline

for advertising in the July 14, 1998 issue of *MicroTimes* Classifieds is **June 25, 1998**

Call **Larry Nusbaum** at **1-888-678-8479** to place your ad.

HOW TO PLACE YOUR CLASSIFIED AD

MINI DISPLAYS
1 column unit = 1-1/4"(w) x 3/4"(h). $60 per column unit for digitally supplied art. We also offer production and design services.

COLOR
Full color is now available for classified advertisements. Prices vary based on ad size and number of colors.

BUSINESS ADS
Rates are $20 for the first 15 words, $1 for each additional word. A centered, bold headline is available for just $10 more — really get their attention!

CATEGORIES
Choose the classification that best describes your product or service, or create a category specific to your needs.

FREQUENCY DISCOUNTS
Ask us about discount rates for multiple insertions.

CATEGORIES
- ○ Accessories
- ○ Bar Coding
- ○ Bulletin Boards
- ○ Business Opportunities
- ○ Capital Available
- ○ Cartridge Refill
- ○ CD-ROM
- ○ Data Conversion
- ○ Data Recovery
- ○ Duplicator Hardware
- ○ Finance
- ○ Hardware for Sale
- ○ Hardware Wanted
- ○ Instructional Videos/ CD-ROMs
- ○ Other_____
- ○ Internet
- ○ Media Duplication
- ○ Memory
- ○ Personals
- ○ Repairs
- ○ Services
- ○ Software
- ○ Training

Consultants' Network
- ○ Business
- ○ General
- ○ LAN /Networking
- ○ Programming

Career Marketplace
- ○ Career Opportunities
- ○ Training

Ad Copy: _____

Cost of Ad_____ x Number of Issue(s) to Run_____= Amt. Enclosed _____

○ Check/MO ○ MasterCard/Visa Card # _____ Exp. Date _____

Name _____

Address _____

City _____ State_____ Zip _____

Phone_____ Fax _____

***MicroTimes* Classifieds • 1300 Clay Street • Suite 820 • Oakland, CA 94612**

PLACE YOUR ORDER TOLL-FREE BY CALLING 888-678-8479

BAR CODING

Just Plug & Scan! No Software Required!

Stainless steel wand equipped with decoder

Just point and click! No contact necessary

Ideal for reading id's of students, members, etc.

Read credit card or driver's license

- Laser Gun Scanner $395
- Driver's License Reader $245
- Cash Drawer $195
- Portable Data Collector $595

For shipping/receiving/inventory

- Credit Card Reader $195
- Bar Code Printing S/W $145
- Receipt Printer $295
- Magnetic ID Card Encoder $795

Make/Duplicate your own ID cards

We interface to AT/Laptop, Mac, DEC & Terminal like WYSE via keyboard or serial port.

1-888-BAR-7250

BARCODE TECHNOLOGIES INC. (408) 956-9971/FAX: (408) 956-0506
1619 South Main Street, Milpitas, CA 95035

BARCODING

For all your Barcode needs call
1-888-560-2726

We Specialize in:

Reselling: Laser Scanners, Barcode Readers, Barcode Printers and Custom Labels.

Over 10 years in Barcode Business

Software: Custom Barcode Software Application on Windows NT with Microsoft SQL and VB 5.0.

vidya data systems

ph# 415-661-7780 fax# 415-661-7782

DATA RECOVERY

DATA RECOVERY TECHNOLOGY

MAC, IBM, COMPAQ, SUN, DOS, NOVELL, UNIX, LAN, OS/2 and more!

Data recovery in hours

- ✓ 10 years experience in recovering lost, damaged and inaccessible data from any operating system or storage media
- ✓ you only pay when there's a successful recovery

FREE ESTIMATES • LOW RATES

1-800-511-data
1-408-249-1987

5029 Stevens Creek Blvd., Santa Clara, CA 95051

Remote Data Recovery Ontrack

The World Leader In Data Recovery Services

- ONTRACK can recover data lost due to: data corruption, mechanical failure, electrical surge, human error, virus infection, water and fire damage.
- Expertise in virtually every operating system & media storage device.
- ONTRACK now has a full-service data recovery facility in San Jose & Costa Mesa!

1.800.872.2599
www.ontrack.com
940 South Coast Drive, Suite 225, Costa Mesa, CA 92626 • 714.641.0530
2001 Gateway Place, Suite 750 West, San Jose, CA 95110 • 408.573.9592
©1997 Ontrack Data Recovery, Inc.

Data Recovery in hours.

- Over 10 years of experience with clients worldwide including Apple, NASA, & FedEx.
- We've recovered more than Half-a-million megabytes of lost data.
- You only pay when there's a successful recovery.
- Call 24 hours a day.

LAZARUS DATA RECOVERY

Working at the Speed of Business.

800-341-DATA

415-495-5556 • FAX 415-495-5553 • RESTRICTIONS MAY APPLY
381 Clementina Street • San Francisco, California 94103

Reach New Customers with
MICROTIMES CLASSIFIEDS
Call Larry Nusbaum **(510) 768-1200**

DATA RECOVERY

Low Cost
Job Guaranteed
Quick Turnaround

DATA-ONE Since 1987
(408) 434-1002

938 Rincon Cir., San Jose Mon-Fri 9-5 pm
(Montague Express & Hwy. 880)

DATA CONVERSION

DataTek CONVERSION SYSTEMS

- DLT
- 9 Track Magnetic Reel
- 1/4" • 3480 • 3940E
- TK50/87 • 4mm • 8mm
- Zip • Jaz • MO • CD
- 3 1/2" • 5 1/4" • 8"

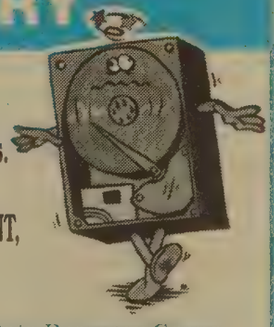
ALL FORMATS

3435 Cerritos Ave., Los Alamitos, CA 90720
(562) 430-0048
800-422-0307

http://members.aol.com/converter9

DATA RECOVERY

- Data Recovery is our only business.
- We have been recovering data since 1987. Our customer list includes over 5000 companies.
- We specialize in recovering data from failed hard drives using: DOS, MAC, WINDOWS NT, NOVELL, UNIX, VMS.



Bay Area
DRG *Your Data Recovery Specialists*
510-347-1010

Data Recovery Group
1821 Marina Blvd.
San Leandro, Ca. 94577
fax (510) 347-4799
www.datarecoverygroup.com

DATA RECOVERY

Lost your data? Don't panic, CALL!

✓ 24-Hour ✓ Weekend
800-886-2231
✓ Priority ✓ On-site

No Data - No Charge

- DOS
- Windows 95 & NT
- Mac
- Novell
- UNIX
- OS/2
- Virtually all operating systems
- Competitive prices
- Clean-room facilities

Visit Our Website
www.datamechanix.com

DATA MECHANIX 18271 McDurmott, Suite B, Irvine CA 92714

BAR CODING

Barcode Solutions 415-661-7780, VIDYA DATA SYSTEMS. Increase productivity and efficiency.

BARCODE TECHNOLOGIES, INC. We interface to AT/Laptop, Mac, DEC, & terminal-like WYSE via keyboard or serial port. **1-888-BAR-7250.**

BUSINESS OPPORTUNITIES

COMPUTER ROOM RENTALS

12 and 16 computer rooms available. T-1 connection, Pentium 133s, & 200s. Upgrades available. State of the art facility. Professional, service-oriented company. Call Alex at **408-866-8033.**

CARTRIDGE REFILLS

Laser & Copier Toner Cartridges Remanufactured.

HP, Apple, IBM, Xerox, others. Sharp, Canon, Xerox copiers. SALE!!! HP II, III, with NEW DRUM, $39.95. CLEMENT ENTERPRISES **1-800-974-8789.**

DATA CONVERSION

DATATEK CONVERSION SYSTEMS- We convert from Magnetic Tape Reels, Cartridges, Diskettes, MOs & CDs to all formats. Fast, professional service. Call: 800-422-0307, http://www.members.aol.com/converter9

DATA RECOVERY

Data Recovery is our only business since 1987. 510-347-1010.

Data recovery. Systems, services & upgrades. DATA RECOVERY TECHNOLOGY, **1-888-511-DATA.**

HARDWARE

Professional PC, Mac, Sun, SGI, & Radius monitors repair. MONI-COMP TECH. 408-254-3746.

PC Monitors for Sale. 17", $299, 20", $399. 6-month warranty. MoniServe, Inc. **1-888-785-7288**, http://www.moniserv.com.

$$$Top Cash Paid$$$. We buy small and large quantities of new/used/surplus SIMMs/Hard Drives/CPUs/SOJs. Call Ted to make a deal today! Pager: 408-366-5665, or work: 408-252-1839.

IBM ThinkPad 500 notebook; Iomega transportable 150MB drive + 5 disks; Intel SatisFAXtion 14,400 fax/modem; voice/fax/data switch; credit-card-size wireless PC remote-control. 415-567-8278, or 73677.3306@compuserve.com.

Build Your Customer Base with

MICROTIMES CLASSIFIEDS

We Can Help You Design An Ad That ***Works*** & Is Budget Friendly!

Larry Nusbaum

510-768-1200

DATA RECOVERY

datarecovery

Whether data is needed NOW or years down the road, MicroCom can make it happen. For years, businesses have relied on us to come through for them, we did, and we can do the same for you. Call for more information.

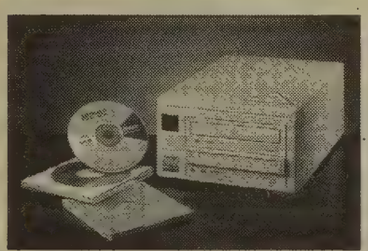
MICROCOM

www.mcrecovery.com • 818 718-1200 •

800 469-2549

DUPLICATOR HARDWARE

World Leading Duplicator Series

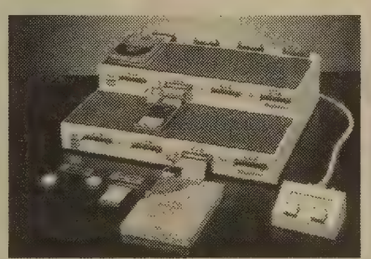


Low Cost CD Duplication Solution

- Copies One CD in 18 Minutes
- Standalone Machine
- Easy to Use, Portable
- Copies CDDA, CDI, CD Data, & Others

High Performance HD Duplicator

- Up to 500MB/Min./Drive on SCSI Models & 300MB/Min./Drive on IDE Models
- Easy to Use, One Button Operation
- Standalone Machine
- Supports FAT, FAT32, NTFS, Unix, OS/2, Apple IDE & Others



ILY enterprise

ILY Enterprise Inc.
6767 8th St.
Buena Park, CA 90620
http://www.ily.com

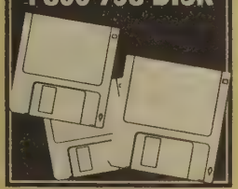
CALL TOLL FREE: 1-888-742-5459

HARDWARE WANTED

$ WANTED $
- SUN
- IBM
- S.G.I.

Parts & Memory
408-294-7812

We Buy Used Diskettes.
1-800-798-DISK



Great Values & Hard-to-Find Services
MICROTIMES CLASSIFIEDS
510-768-1200

HARDWARE

USED COMPUTERS Bought & Sold

(415) 346-1692

- Laptops
- Desktops
- Parts

Top Dollar Paid
WARRANTY ON ALL COMPUTERS SOLD!

Personal Computers For Less
10th Year in Business

PROFESSIONAL PC, MAC, SUN, SGI, & RADIUS MONITORS REPAIR

• Will beat all competitors' prices. • Free pickup & delivery (local).
• Free loaner available. • Manufacturer & dealer 10% discount.

REFURBISHED & USED MONITORS SALE

VGA 14 inch	$70
SVGA 14 inch	$85
SVGA 15 inch	$150
SVGA 17 inch	$280
SVGA 19 inch	$399
WYSE Terminal	$120
SUN & MAC	$Call

PC COMPONENT SALE

512K INTEL CHIPSET M/B	$80
4X SCSI REFURBISHED	$40
1M CIRCUIT LOGIC VIDEO	$29
CPU, HDD, MEM	$Call

MONITOR SERVICE (FLAT RATE)

14-15 inch	$45
16-17 inch	$90
19-21 inch	$150
WYSE Terminal	$45
BIG SCREEN SUN, MAC, RADIUS FROM	$160

MONI-COMP TECH.
Nation-Wide Monitors, Terminals, PC Sales & Service

1710 Berryessa Road, #114 , San Jose, CA 95133
(408) 254-3746 • Fax (408) 254-3634

CELLULAR RCCA $1780

Call to receive a complimentary brochure of PC based cellular test equipment for the repair/programming of cellular phones and remote telemetry applications. ***Call Today!***

CELLCOM
567 W. Channel Islands Blvd. #390 • Port Hueneme, CA 93041 (805) **487-0720**

HARDWARE WANTED

Network
- EQUIPMENT
- CARDS
- HUBS

WANTED

IBM • 3COM • INTEL
SMC • Madge • Adaptec
Olicom • HP Jet Direct
Cisco • Synoptics

★ PLUS EXCESS ★ COMPUTER INVENTORIES

JE COMPONENT
(310) 828•0094
fax: (310) 828•4184

TOP CASH PAID!

For all Notebooks, Desktops, Monitors, Printers, Scanners, Parts & Accessories.

New, Used & Refurbished O.K.!

Fax to: Mr. Chernow @ (213) 724-2200 or call: (213) 724-1800

HARDWARE WANTED

$ TOP DOLLAR PAID $
CPU, MEMORY & HARD DRIVES

All Computer Equipment & Manufacturers
Surplus, Overstock, Liquidations, Wholesale

BUY & SELL • NEW & USED

The Computer Connection

(888) 517-1607
(619) 420-4587
Fax (619) 420-4588
computerconnect@home.com

Visit our website: www.computerconn.com

HP, Sun
Digital PC
Mac Peripherals
Microsoft Software

INTERNET

INTERNET
Unlimited access for $12.50/month!!
Dial-in & log in as guest
415.364.6674
-DataTamers-
P.O. Box 2467
Menlo Park, CA 94026-2467
415.364.7919 (voice/fax)

Great Values & Hard-to-Find Services
MICROTIMES CLASSIFIEDS
510-768-1200

INTERNET

Graphic Design Concepts

www.gdcweb.com

If supplementing your advertising and increasing your exposure would help potential customers know where you are, what you do and how to reach you...

Contact us!

2971 Kentridge Dr.
San Jose, CA 95133

Ph. 408-937-4630
Fax 408-926-6479

We make accessing information as easy as talking

Inter & Intranet Client/Server
Consulting & Implementation

Our expertise is in:
- Web Integration
- ORACLE: SQL Server
- UNIX, NT, Novell
- PowerBuilder LotusNotes Developer 2000
- C, C++
- HTML, JAVA, CGI

DataTalk Incorporated

Phone #: (650) 842-9960
www.datatalk-ca.com

Web Site Development

AS LOW AS $1,495

Call for:
- **Web Site Design** Including – Setup, Domain, 15 pages, 12 Graphics, Links and Order Form
- **Reasonable Web Site Maintenance**

DESKTOP INNOVATIONS
Internal Marketing and Electronic Commerce
408/269-4929
http://www.desktopinnovations.com

Expand Your Universe.

PERSONAL INTERNET SERVICES
Unlimited Internet Access (flat fee)
33.6k - $16.95 mo. • 56k - $19.95 mo.
Free technical support 7 days a week

BUSINESS INTERNET SERVICES
Web Design & Hosting
Leased Lines - Modem, ISDN,
Fractional TI, TI and up

REDSHIFT
408.655.8710 www.redshift.com

NEW

GOT AN IDEA OR PRODUCT?

FREE
INTERNET BUSINESS WEBSITE

CALL TODAY
310 • 840 • 2943
WE WORK ON A COMMISSION BASIS ONLY.
SOME RESTRICTIONS APPLY.

INTERNET

WEB SITE DESIGN

WEB-SITE Development- Low cost design; 3-D graphics, programming. WEB-SITE management- Update & Improvement site; site maintenance (Web hosting services available). **Sunnygraphics, http://www.sunnygraphics.com, 408-954-8777.**

ASIAN WOMEN Desire Romance, Marriage! World's #1 correspondence service since 1984! Free photo-brochure! SUNSHINE INTERNATIONAL, Box 5500-MZ, Kailua-Kona, Hawaii 96745-5500. **808-325-7707, http://sunshine-girls.com**

eLine Productions

Since 1993. 415-543-0760. A Web applications & database development company. Full development, design, hosting, and consulting services. Creators of SmartConf®, BasiChat®, & Ggutenberg 2000®. See our client list online: www.eline.com.

Web Hosting @ NT Speed. Plans start from $14.95/month. http://site-hosting.net 1-888-463-6168. Dynatek Infoworld, Inc., info@sitehosting.net.

Web Site Hosting from $16.95 per month (Info Treasure, Inc.)

Get Your-domain-name.com; 5 e mail; CGI Access, 40MB disk space. Toll free 1-888-446-1688; www.link4info.com. or infolink@link4info.com.

250MB Web Hosting at $14.95 per month! www.icestorm.com

We offer 250MB, 3000MB traffic, SSL access, FrontPage 98 extensions, pre-configured CGI scripts, plus superior technical support at the lowest rates possible. We also offer a reseller program that can drive positive cash flow to your business. Visit http://www.icestorm.com , email: webhosting@icestorm.com , or call 415-664-4895 for more information on our incomparable Web hosting deals.

TOP 20 SEARCH ENGINE PLACEMENT — Satisfaction guaranteed! Web development, hosting & management. 415-885-0325 or visit http://208.138.34.37/.

MEDIA DUPLICATION

CD-R'S DIRECT media, silk screen, duplication. San Jose location. 408-83-9470 ext. 160.

REPAIRS

COMPUTER REPAIR

PC install, repair & upgrade hardware & software. Flat rate plus parts. Call anytime. 510-813-8140.

Monitor Express is the Bay Area's largest monitor specialist. SF: 415-668-7900, Sunnyvale: 408-773-9800, San Jose: 408-436-8189. Sales and repairs.

PRINTER REPAIR: HP, APPLE, CANON, BROTHER. We can repair them fast. Prices are always very reasonable. Visit us at 510 Lawrence Expwy., Sunnyvale, CA.(near Fwy. 101), 1-800-894-8974 (Techs wanted).

The notebook computer services center. Sale, buy, trade, & repair. 408-294-9970.

Monitor and terminal repair, $50 most models. Warranty. 30 years experience. Call Beyond Repairs 510-783-6805.

Classifieds On-Line!
Visit Our Web Site:
www.microtimes.com

MEDIA DUPLICATION

CD-R $5/Disc includes media, duplication, printing & jewel case.
$0.99/Disc includes media, jewel case
Saicom Inc. 510-438-4550

Overnight CD-R Copies
Includes Free CD Printing
Lowest Prices
AV3 1-888-283-0080

INTERNET

WEB STARTING FROM $300
415•759•7531
Design MAINTENANCE GRAPHIC
http://home.earthlink.net/~mingdesign

IMMIGRATION
Law Offices of Paul M. Heller
Labor Cert. & Work Visas • Individual, Bus. & Corp. Clients
(415) 291-8000
http://www.greencard1.com
e-mail: heller@greencard1.com

MEDIA DUPLICATION

Don't Delay, Do it Today!!!
DISK & CD-R DUPLICATION
"Fastest in the West"
All Formats. No Minimums!!
Our 12th Year!
CD-ROM 1-1,000,000
Custom Packaging
I.D. DISK CO. (415) 883-4628 Nationwide 800-987-7509
Visit Our Web Site: iddisk.com

DISKETTES & CD DUPLICATION
Disk Duplication From $0.28/pc.
CD-R Duplication From $4.00/pc.
CUSTOM LABELS • PACKAGING
ASSEMBLY • WAREHOUSING
➡ Modem, Sound Card, VGA Card and Other Utility Disk Duplication Specialist
➡ Blank TDK, Sony, Kodak and any other CD-R74s available at wholesale prices!!
888-668-6660

CD-R DUPLICATION SPECIALISTS
CD-R & DISKETTE DUPLICATION
CD-ROM REPLICATION
ZIP DISK DUPLICATION
PRINTING, PACKAGING
POLYBAG, SHRINKWRAP, ASSEMBLY
Same Day Turnaround Available!
(408) 943-1233
FAST RELIABLE COMPETITIVE Since 1980
International DATAWARES
2150-A Oakland Road San Jose, CA 95131
408..943.1233 tel 408..943.1002 fax
CALL US TODAY FOR A COMPETITIVE BID!

CD-R Media Duplication
SAME DAY RUSH ORDERS
NO MINIMUMS
ALL QUANTITIES ACCEPTED
CD-R &CD-ROM
- MASTERING
- PREMASTERING
- ALL FORMATS
- SILKSRCEENING
- PACKAGING & ASSEMBLY
- SHORT RUN CD REPLICATION
- CD MASS PRODUCTION
- ARTWORK, FILM, & PRINTING SERVICES
- QUICK TURNAROUND TIME
300 500 1000
- Exhausted from the price confusion over these quantities?
- One simple phone call can solve all your problems, such as turnaround time, Q.C. procedures, and pricing.
- We're here to serve you!
- The bottom line is we want your business!!!
DISKETTES
- 3.5" HIGH / LOW
- VIRUS SCAN
- LABEL DESIGN & PRINTING
- ALL PACKAGINGS
- QUICK TURNAROUND TIME
2225 MARTIN AVENUE, SUITE I / SANTA CLARA / CA / 95050
PH#(408)653-1200 Toll Free 1-800-653-1040 FAX#(408)653-1234 www.DISCPAK.com
D•I•S•C•P•A•K

MEDIA DUPLICATION

CD-R'S DIRECT
MEDIA•SILK SCREEN•DUPLICATION
Ultra Media Inc.
Optical Disk Replication
www.cdmakers.com
2048 Corporate Court
San Jose, California 95131
Tel: 408.383.9470 ext.160
Fax: 408.383.9487
THE ONLY CD MANUFACTURER IN SAN JOSE

Software Manufacturing
- Diskette Duplication
- CD-R, CD-ROM Duplication
- Assembly, Printing, Shrink-Wrapping
- Inventory Warehousing & Order Fulfillment
- Complete Turnkey
SAICOM INC.
1340 Fulton Place, Fremont, CA 94539
Phone 510/438-4550 Fax 510/770-8658
Web: http://www.saicomm.com • E-mail: sales@saicomm.com

Your Documents on CD
MANUALS
DATA SHEETS
METHOD SHEETS
PRESENTATIONS
FONTS, LOGOS & IMAGES
SALES INFORMATION
SCAN IN HARDCOPY
DATA BOOKS
PRODUCT SPECS
WEB SITES
MOVIES, VOICE & SOUND
TECHNICAL DOCUMENTS
CALL FOR QUOTE
Content Development, Design, Pre-Mastering, & Duplication
12967 Saratoga Ave., Saratoga, CA 95070
Fax: 408.253.5446
Tel: 408.253.0466
METRO CD
A DIVISION OF METRO DESIGN CENTER

MEDIA DUPLICATION

Turnkey Software Duplication & Packaging

Highest Quality Media & Equipment

- Software Mastering & Replication
- Printing: Custom Color Boxes, Product Packages, Labels, Manuals & Data Sheets
- Computer Components Testing, Product Assembly, Shrink Wrapping & Inventory Warehousing
- Prepress; Graphic & Package Design

Duplication 100% Guaranteed !
Fastest Turnaround & Best Pricing

E-mail: apcsale@aol.com
http://www.apcasm.com

TO ORDER, CALL: **800-666-1007** APC

APC, Inc. 29620 [illegible]

LOW PRICES AHEAD!

CD/CD-ROM Manufacturing (2 color)	2 Week Turnaround
1000 - 3999	$0.72
2000 - 7499	$0.68
7500 - 14999	$0.66
15000 - over	$0.64

RUSH ORDERS AVAILABLE!

CD REPLICATION • GRAPHICS • PRINTING • PRODUCTION

Crystal Sand Multimedia Services

(415)864-7771v (415)864-7778f www.crystal-sand.com

SOFTWARE DUPLICATION SERVICES

We Offer Complete Software Packaging

- Labels
- Order Fulfillment
- EDI
- CD-ROM Replication
- Printing

2471 Autumvale Dr. Ste C • San Jose, CA 95131
Fax: (408) 956-0429 • www.softdupe.com

1-888-956-9650

SOFTWARE

#1 PC DIAGNOSTICS

$9.95 to $29.95 Product and download info at **www.tufftest.com**

MacTreasures

Unique and unusual Macintosh software. Apple II to Power Mac. **www.mac-treasures.com**

CONSULTANTS' NETWORK

Network Consultants

Expert, reliable network design, consulting, and support. We provide affordable services in multiple OS integration (NT, Novell, Win, UNIX, and Linux), Internet connectivity (www, FTP, mail, firewalls), and UNIX and Linux technologies. 510-835-7873, or info@suse.com.

FREEMAN'S ALMOST FREE CONSULTING. Low rates for installing new systems or adding new hard or floppy drives, modems, printers, CD-ROMs. Also configure DOS or Windows 95 software for optimum performance. Can give you shareware games, menus, freeware, utilities, and delightful things you didn't dream existed. Kyle Freeman 415-621-4430.

Everything for and about the PC. http://www.pc-consultant.com, or 650-755-2284.

FAST

Affordable PC & LAN help! Setup-Upgrade-Troubleshoot. Windows 95, NT & WFW, Novell, Lantastic. Hardware sales. Software installation & training. Very competitive rates. Call John Herring, **510-527-3711.**

We DO EVERYTHING! Custom relational databases, inventory, document scanning, scheduling, projects, management, bar code; training; networks and cabling. Internet sharing setup, Web development; repair, upgrade, new hardware; $30/hr, First hour free! George Ou 415-382-9672, or oucomputers@geocities.com.

Build Your Customer Base with MICROTIMES CLASSIFIEDS

Overnight CD-R Copies!

888 234.DISC 3472

www.acutrack.com

And Conversion Source

- Floppy Diskette Duplication
- Tape Duplication 9 Track

Your Media Duplication

- Up To 500 Copies Overnight
- Free Printing on Disc
- Reliable Duplication & Replication
- Pre-Mastering & Conversion
- CD-R Silk Screening
- CD Replication and Packaging
- Graphic Design, Film & Printing Service

Local: 510-581-4536 • Fax: 510-581-7386

Acutrack

- CD-ROM Replication
- CD-R Duplication
- Mastering
- Silkscreen
- DVD Replication
- Packaging

MPD
Media Packaging & Distribution, Inc.

Lowest prices

Jewel Cases	Bulk Diskettes	Phone - 510-483-8342
CD Envelopes	CD-ROM's	Fax - 510-352-8228
CD Mailers	Printed Materials	

Great Values & Hard-to-Find Services

MICROTIMES CLASSIFIEDS

Call Larry Nusbaum
510-768-1200

DISKETTE DUPLICATION DISTRIBUTION

DISKETTE DUPLICATION

1 800 798 DISK

Printing + Packaging + Shrink Wrapping

3.5 DS/HD Duplication w/Custom Labels - 100% Guaranteed

JAC INDUSTRIAL, INC.

4564 Enterprise St. • Fremont, CA 94538
Tel: 510 438-6668 • Fax: 510 438-6669

SOFTWARE DUPLICATION

- CD-ROM Replication
- CD-R Duplication
- Diskette Duplication
- Assembly, Printing and Packaging
- Same-Day Service Available
- Low Price and Satisfaction Guaranteed

888-283-0080

AV3

Tel: 510-445-0101
Fax: 510-657-8211
Web: www.av3.com
E-Mail: sales@av3.com

LAN

COMPUTER CABLING. Cat 5, 10 BASE-T, Voice, ISDN. 10-year warranty. Free estimates and competitive pricing. Your COMMUNICATIONS SPECIALISTS. 650-219-0989.

CATEGORY 5 CABLING. Fast Reliable Service. Free Estimates. Call the Best. 24-Hour Hotline. 650-738-0264.

Network Cabling at Modest Prices

Pofessional service, no-charge estimates. Fax, modem & voice cabling. RPS Teledata, **510-980-2714,** License #688214.

TOP NETWORK SPECIALISTS. NT, UNIX, Novell, Web design & admin., internet security, remote access, local/wide area. S.B.S., Walt: Voice 1-800-215-6333.

Microsoft Exchange, MSMail, NT Consultation, design, and implementation. Call Rob, 650-359-8372, e-mail: Coast@Slip.net.

Build Your Customer Base with

MICROTIMES CLASSIFIEDS

*We Can Help You Design an Ad That **Works** & Is Budget Friendly!*

Call 510-768-1200

REFURBISHED HP PRINTERS AVAILABLE!

800-585-9121

MANY MODELS TO CHOOSE FROM

2's, 3's, 4's, 4V, 5's, 5SI

Call for *FAST* On-Site Service!

ABS Is the Refurbished Laser Printer Warehouse!

HEWLETT PACKARD

Toner cartridges for all laser printers, fax and copy machines, recycled and brand names

Cash Paid for Your Old Laser Jet Printer

On-site LASER PRINTER TUNE-UP $39.95 (Carry-in) Exp 12/98

ABS Computers

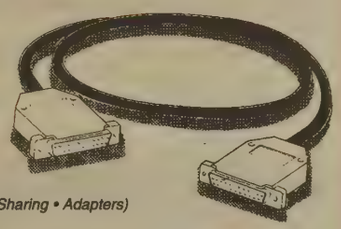
131 8th St. • San Francisco • 800-585-9121

COMPUTER CABLES

870 Market St., Ste. 305
San Francisco, CA 94102

The Computer Cable Specialists

- *COMPLETE LINE OF STANDARD CABLES*
- *CUSTOM COMPUTER CABLES*
- *OEM PROTOTYPES*
- *NETWORK • DATA COMM • P.O.S.*
- *RELATED ACCESSORIES (Switchboxes • Print Sharing • Adapters)*



dia, inc.
computer cables and accessories

415/392-4614
800/342-4525

COMPUTER MEDIA DIRECT

Your Single Source for Computer Supplies

HEWLETT PACKARD · brother · Canon · XEROX · Authorized Dealer · OKIDATA · Panasonic · SHARP

COMPATIBLE TONER CARTRIDGES

For HP LaserJet II/IID/III/IIID. Apple LaserWriter II/IINTX. Canon EP-S Series II/SX

PART NO	MODEL	QUANTITY 1	QUANTITY 2+
116811	HP LaserJet II/IID/III/IIID. Apple LaserWriter II/IINTX/IIG	$34.95	$32.95
116821	HP LaserJet 4/4M/4M+/5/5+. Apple LaserWriter Pro 16/600PS	$64.95	$62.95
116842	HP LaserJet IIP/IIP+/IIIP, Apple Personal LaserWriter LS	$42.95	$39.95
116812	HP LaserJet 4L/4ML/4P/4MP. Apple Personal LaserWriter 300	$48.95	$46.95
116817	HP LaserJet 5SI/5SI MX	$139.95	$137.95
116815	HP LaserJet 5P	$54.95	$52.95
116816	HP LaserJet 5L	$49.95	$47.95
130166	Canon Copier PC-6RE, 7, 8, 11, 65, (A-30 cartridge)	$59.95	$57.95
130601	Canon FAX L700 (FX-1 cartridge)	$54.95	$52.95
116805	Canon E-31, Hi Yield (3000 pgs.), PC 310/330/770	$89.95	$87.95
116841	Apple LaserWriter Select 360	$54.95	$52.95
116823	IBM, Lexmark 4019 Hi Yield	$89.95	$87.95
116830	IBM, Lexmark 4049 Hi Yield	$124.95	$122.95
130303	Xerox 5009/5310	$74.95	$72.95
130603	Ricoh FAX 3000L/3200L, (Type 30 Cartridge)	$49.95	$47.95
130608	Ricoh FAX 2700/3700/4700, (Type 150 Cartridge)	$89.95	$87.95
	COMPATIBLE TONER	**1-4**	**5+**
116827	OKI 400/800 Series, DOC-IT, 3000/4000 Series	$17.50	$16.60
116828	OKI 400e/600e/800e Series	$16.75	$15.90
116845	Panasonic 4410/4430/Panafax UF-766/4440	$26.95	$25.60
117905	Panasonic 4450/4450i/4451/UF-750 D/FX, OMNIFAX L-75, FUJITSU DEX 730	$26.95	$25.60
116847	Sharp JX9500	$26.95	$25.60
116856	Brother HL 630/641/645/650/655M	$22.50	$21.40

If your cartridge model is not listed please call Computer Media Direct

Quality & Savings!

Realize substantial savings when purchasing quality replacement cartridges from Computer Media Direct. Your image is important, that's why all of our cartridges are manufactured by a trusted name in the Silicon Valley under strict quality controls. Each cartridge is guaranteed or we will replace it at no charge!

COMPUTER MEDIA DIRECT 2190 Paragon Drive San Jose, CA 95131 **1(800)523-1238** Fax: (408)441-8354

MEDIA SUPPLIES

CDR MEDIA SPECIAL 69¢

RE-WRITABLE CDs: $12.99ea.

TDK

CD-R MEDIA 74 min./650MB
Branded w/Jewel PRICE / QUANTITY

	10	50	100	500
TDK/MITSUI	$1.49 SPECIAL! • While Supplies Last			
SONY	2.29	2.19	2.09	1.99
KODAK	2.19	2.09	1.99	1.89
BLANK		1.09	.99	.89
SPINDLE			.75	.69

ORIGINAL **YAMAHA** RETAIL PACKAGING

CRW40001PC 4x2x6 internal, rewritable, IDE $539
CRW4260tiPC 4x2x6 internal, rewritable, SCSI $539
CDR400tx-PM 4x6 external, PC/Mac, SCSI ..... Call
CDR400ti-PC 4x6 internal, PC, SCSI ..... Call

HEWLETT PACKARD
Surestore CD-writer+HP7200i (2x6) $419
Surestore CD-writer+ HP7200e (2x6) $509

CALL FOR NEW MODELS & PRICES

CD-R PRINTERS & DUPLICATORS

RIMAGE ..... CALL
FARGO ..... CALL
MediaFORM ..... CALL
CYGNET ..... CALL
JVC ..... CALL

CD-R ACCESSORIES

CDR "Stick-It Right" Labeling Kit 27.99
CDR "Stick-It Right" Refills 20.99
CDR Paper Sleeves ..... .06
Bulk Jewel Cases (100 minimum) ..... .20

DVD DRIVES

Panasonic • Pioneer
Hitachi • Toshiba
Call for pricing & availability

REMOVABLE STORAGE

IOMEGA ZIP DRIVES

Zip Plus external / parallel 199.00
internal / external / parallel 139.00
ZIP CARTRIDGES: $10.69/10-PAK: $99.00

IOMEGA JAZ & DITTO DRIVES

Jaz 2 GB int. $499.00
Jaz 2 GB ext. 599.00
Jaz 1 GB int/ext. 289.00/379.00
Ditto 2 GB int./ext. 117.99/167.99
Ditto Max 2 GB int./ext. 197.99
Ditto Pro 2 GB int./ext. 297.99
1GB JAZ CARTRIDGES 79.99/5-PAK $390
2GB JAZ CARTRIDGES 127.00/5-PAK $605

SYQUEST SYJET DRIVES

SyJet 1.5GB Cartridge $69.99
SyJet 1.5 GB int./ext. SCSI $279/299
SyJet 1.5 GB external parallel (PC/Mac). $299

SYQUEST SPARQ DRIVES

SPARQ 1.0 GB ext./int. parallel $197.99
SPARQ CARTRIDGES: $38.99/3-PAK $97.99

SYQUEST CARTRIDGES

44/88 MB 34.99/39.99
135 MB EZ/230 MB EZ Flyer 14.99/19.99
200/270 MB 49.99/39.99

DATA CARTRIDGES–1/4 inch

SONY 3M

DC2120 QIC 80 ..... 10.99/10.99
DC2120 XIMAT 11.49/11.49
DC2120XL XIMAT 14.29/13.29
MC3000XL TAUMAT ..... 26.99/ –
MC3000XL PIMAT ..... 24.99/ –

TRAVAN TECHNOLOGY — SONY 3M

TR1 (400 MB) 19.99/21.99
TR1 (800 MB) ..... —/25.99
TR3 (1.6 GB) 23.99/25.99
TR4 (4.0 GB) 25.99/29.99

4MM DATA GRADE

3M SONY

120M (4.0 GB) DDS-2 ..... 11.99/11.99
90M (2.0 GB) 5.99/5.99
60M (1.3 GB) 3.99/5.99
125M DDS-3 ..... —/34.99

8MM DATA GRADE

3M SONY

QG 112M (5.0 GB) 6.99/6.99
QG 160M (14.0 GB) 12.99/12.99
QG AIT SDX-T3N ..... —/79.99

SONY QIC WIDE TAPES

QW5122F (420 MB) 9.99
QW2GB (2.0 GB) 19.99
QW3000XL (1.0 GB) 18.99
QW3010XLF (900 MB) 16.99
QW3020XLF (1.7 GB) 17.99
QW3080XLF (4.0 GB) 21.99

Premium Grade IBM Formatted DISKS

Available for immediate shipment!
3.5HD IBM Formatted ..... 20¢
3.5HD MAC Formatted ..... 25¢
OEM Duplicator Grade 3.5 HD ..... 22¢

PLEASE CALL FOR OTHER COLORS

Don't see an item you need? Call us & ask to receive our free catalog.
1-800-557-1000
We offer a full line of HP/EPSON printer supplies. Call for details.

EXXUS/DisksDirect
200 San Mateo Ave. Los Gatos, CA 95030
Tel 800-557-1000 · Fax 800-557-9000
Tel 408-399-7655 · Fax 408-399-7671
www.disksdirect.com

DisksDirect.Com
1-800-557-1000

FREE SHIPPING FOR ALL ORDERS WITHIN THE SAN FRANCISCO BAY AREA
100% 30 day satisfaction guar...
Prices and availability subject to ...

CD Recordable Products

YAMAHA
CRW4260 int. rewrite 4x/2x/6x $469
CRW4260 ext. rewrite 4x/2x/6x $529
CRW4001 int. rewrite 4x/2x/6x $429
CD400Ti int. recorder 4x/6x $419

RICOH
MP6200s rewritable 2x/2x/6x $369

BTC/PHILIPS
BCE62IE IDE rewritable
2x/2x/6x retail kit! $325

SOFTWARE
Ez cd creator 3.01 + direct cd 2.0 ..... $49
Ez cd creator deluxe $89
Gear 4.2 professional mastering sw $39
Gear Replicator 1.2 bit copier $39
Gear CD-R suite $89
Gear WebGrabber $19
Adaptec Toast for Mac $49

INITIO SCSI CARD
Initio PCI ultra SCSI 2 card w/ Box, manual, drivers, warranty $69

CD LABELING SYSTEM
Stomper! Pro labeling kit w/50 labels, software & Stomper $27
Refill Kit 100 Labels $20

CD ACCESSORIES
Slimline 4 cd soft plastic jewel case $2
The size of one slim jewel case!
Leatherette CD Wallets
12, 24, or 48 discs $8/11/14

MemoryMedia.com
888-JBC-DRAM (order only)

2390 De La Cruz, Unit 5
Santa Clara, CA 95054
408-496-6660
415-285-7007
Fax 408-496-1299

Prices subject to change and reflect a 2% discount for cash
7 day money back with
10% restocking fee
See store or inquire for details

CD-R Media

GOLD MEDIA	10	50	100
Mitsui	1.99	1.79	1.59
Taiyo/Kodak	1.69	1.59	1.49
Arita Sleeved	1.49	1.29	1.19
GREEN MEDIA	10	50	100
Mo Data	1.39	1.19	1.09
Arita Sleeved	1.29	1.09	1.00
Spindle		.89	.79

CD-RW Discs $13.99ea. or 10 for $12ea.

REPAIRS

LASER PRINTER REPAIR

- AUTHORIZED HP REPAIR CENTER
- 6-MONTH WARRANTY
- FREE: Local P & D, LOANER, & FLAT -RATE Estimates!
- We will beat any competitor's repair estimate!

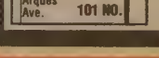
**Applies to Most HP Laser Printers*

LJ II/III Toner $32.95
LJ 4/4+/5 Toner $62.95 w/tune-up
New LJ 5SI/ 5SI MX Toner $139.95
New LJ 3SI/4SI Toner $99.95

Mention this ad . . . We sell new and used printers!

SAME- TO NEXT-DAY DELIVERY
NEW & RECY. SUPPLIES
HIGH QUALITY & LOW PRICES

Business Laser Printers • Personal & Business InkJet Printers
Color Laser Printers • Large Format Laser Printers



LaserSharp Inc.
Sales & Service: (408) 730-0400
510 Lawrence Expwy. #107, Sunnyvale • Open M-F 9:00-6:00

All major cards accepted

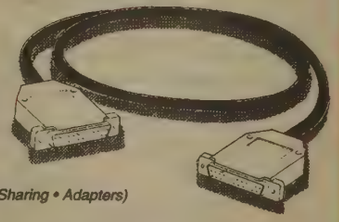
Apple, Brother, Canon, DEC, GCC, LexMark, OMS, Xante

COMPUTER CABLES

870 Market St., Ste. 305
San Francisco, CA 94102

The Computer Cable Specialists

- COMPLETE LINE OF STANDARD CABLES
- CUSTOM COMPUTER CABLES
- OEM PROTOTYPES
- NETWORK • DATA COMM • P.O.S.
- RELATED ACCESSORIES (Switchboxes • Print Sharing • Adapters)



dia, inc.
computer cables and accessories

415/392-4614
800/342-4525

MONITOR EXPRESS
—THE BAY AREA'S LARGEST MONITOR SPECIALIST

NEW MONITORS

Special
14" Maxtech 0.28 DPI 1024x768 ..... $99
15" Maxtech 0.28 DPI 1280x1024 ..... $159
17" ADI 0.28 DPI 1280x1024 ..... $269
17" DECAVIEW 0.28 DPI 1280x1024 ..... $269
19" DECAVIEW 0.26 DPI 1600x1200 ..... $499

Impression
P215/PROT/7 PLUS ..... $1199/$569/$379

Mag
DX500T/DX700T/DJ700/DJ702E/DJ800 ..... $299/$449/$529/$419/$679

Princeton
EO70/EO72I/EO74/Ultra 72/EO90 ..... $389/$499/$569/$359/$679

Mitsubishi
TFW8705SKHK 17" Dia. Pro. $699
TFW9105SKTK 21" $1399

NEC
X700/P750/E700 ..... $599/$849/$859

Nokia
447L058/447XAV/447XI ..... $619/$729/$669

Iiyama
MT-9017E/S901GT/MT-9021E ..... $569/$809/$1309

Sony
100ES/100GS/200ES/200GS/200PS/400PS ..... $299/$369/$559/$569/$789/$1199

ViewSonic
17PS/17EA/17GA/GT770/GT775/PT775 ..... $549/$579/$609/$619/$629/$679
ViewSonic UPA 138LCD Panels $2499

Notebook Best Buy *$1499.00*
3300 12.1" TFT/Pentium 200MMX CPU
32MB RAM on Board/3.0GB Hard Drive
20x CD Rom 1.44MB Floppy Disk
Pentium 233MHz w/MMX *$1549.00*

REFURBISHED & USED MONITORS

20" Multisync ..... from $399
17" Multisync ..... from $199
15" Multisync ..... from $129
14" SVGA NI ..... from $89
14" SVGA IN ..... from $79
14" VGA ..... from $59
14" EGA ..... from $49
14" Mono ..... from $29
Big Screen Sun, Radius, SGI & Mac
Fixed-Frequency Monitors ..... from $200
Dumb Terminal & Keyboard ..... CALL
NEC, Sony, Mitsubishi, MAC, PC, Sun
& Customer's Video Cable and Power Cable ... CALL

Trade your used monitors with new purchase

✦Professional PC, MAC, Sun, SGI, DEC, HP & Radius Monitor Repair

Touch Screen Installation

✦Free Estimation, Flat Rate, Free Parts (except FBT, CRT, & Case)

EXPRESS SERVICE & FREE LOANER
FREE LOCAL PICK UP

Call for Quantity, Manufacturer & Dealer Discount Price.

VISA MasterCard BBB

MAG INNOVISION NOKIA SONY ViewSonic NANAO NEC

3312 Geary Blvd. • San Francisco, CA 94118 • Ph(415) 668-7900 • Fax(415) 221-8220
538 Lawrence Expressway • Sunnyvale, CA 94086 • Ph(408) 737-8080 • Fax(408) 773-9800
689 East Brokaw Road • San Jose, CA 95112 • Ph(408) 436-8768 • Fax(408) 436-8189
http://www.monitorexpress.com

PROGRAMMING

****ACCESS, VB AND NT CONSULTING****

Databases and networks. Excellent references, helpful consultations. Programmers wanted. PavlovDog Co., 510-540-1150, or pavlovdog@earthlink.net.

High-quality programming, consulting. C/C++, VB, Access, Java, COBRA, NT. Six Sigma Software. Brian Strand, 510-595-8675, or strand@pacbell.net.

SOFTWARE DEVELOPMENT for networked PCs. Design, development, and documentation. 15 years of professional experience. Gibson Engineering, 415-431-9414, or bark@oddhours.com. Mark Baker/Gibson Engineering, 42-1/2 Langton St., San Francisco, CA 94103.

Access 97 Databases

Expert, affordable, fast Access 97 database development. Solon Systems Consulting 1-800-286-1782, **www.solonsystems.com.**

MONITOR REPAIR
EXPERT SERVICE ON PC MONITORS

INDIVIDUAL • DEALER • MANUFACTURER

- FREE Estimate
- LOWEST Price
- FAST Turnaround

FREE Pick-up & Delivery For Dealers

INDOVISION CORP.
40485 Encyclopedia Circle, Fremont, CA 94538 • 510-651-6888

MONITOR & TERMINAL REPAIR

- 10 years of expert service on any model & size
- TERMINAL, VGA, SVGA, SUN, MAC, & MULTISYNC
- 2-day quick turnaround & 120-day warranty
- Lowest price, free estimate, pickup & delivery
- Free parts, excluding CRT, FBT, & BEZEL

CSV 2071 Winchester Blvd., Campbell, CA 95008
Tel: (408) 374-0659 Fax: (408) 374-0289

THE NOTEBOOK COMPUTER SERVICES CENTER
SALE, BUY, TRADE & REPAIR

FREE ESTIMATES

We Buy, Sell, Trade, Repair & Refurbish Laptops, Notebooks & Subnotes.

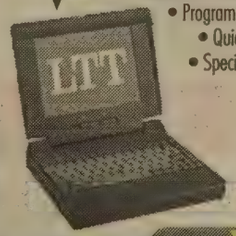
We Specialize in Component Analysis Upgrades, Hard Drives & Memory.

90-DAY WARRANTY

We Perform:

- Network Consulting Services
- Programming Analysis
- Quick Turnaround
- Special Rates for Business-to-Business Accounts
- Repair & Troubleshooting
- Hardware/Software Assessment
- Free Pickup and Delivery

1-on-1 Training/Instruction for Computer Novices. We Specialize in Windows NT.



Bring this ad in as your coupon and receive 10%OFF any repair or purchase

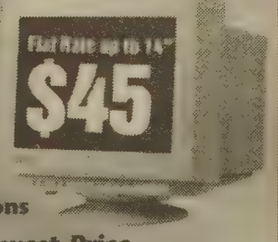
LapTopTek
AN LTT CORPORATION COMPANY

Tel (408) 294.9970 or 1-888-886.6800
2030 Senter Rd., San Jose, CA 95112 • Fax (408) 294.7088

COMPAQ IBM AST Apple Texas Instruments Acer EPSON Canon ZEOS Packard Bell TOSHIBA

MONITOR REPAIR

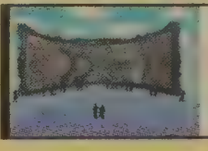
- Free Estimates
- Fast Service
- Expert Repair on All Monitors



- PC
- APPLE
- SUN Workstations

Guaranteed Lowest Price

PRO VIDEO SERVICE
1916 Camden Ave., San Jose, CA 95124
Tel (408) 371-2360



MENTION MICROTIMES CLASSIFIEDS

ONE STOP ! Monitor Repair Center

Established Since 1987

Call for Monthly & Dealer Discount Rates

New and Refurbished Monitors for Sale

$45 Flat Rate Charge

FAST TURNAROUND !

- Service Contracts
- Quality Control & IQC
- RMA & RTI Screening
- ECO Reworks

M-F: 8:30am-6pm
Sat.: 11am to 4pm

On All PC VGA,SVGA Monitors up to 14"
All Parts Included Except FBT, CRT & Plastics

6-Month Warranty
With Customer Satisfaction Guaranteed

COMPU MONITEK SERVICES, Inc.

2480 Alexander Ct. #C, Hayward, CA 94545
Tel: (510) 264-1603

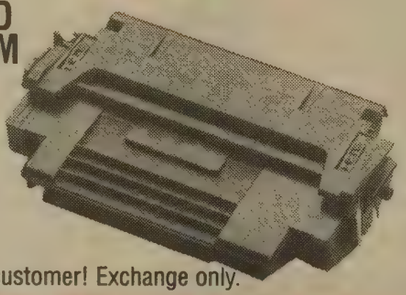
VISA MasterCard AMERICAN EXPRESS

LASER PRINTER & FAX REPAIR

REMANUFACTURED TONER CARTRIDGES FOR SALE

- Free Cleaning, with Repair
- Free Local Pick Up and Delivery
- Free Loaner (Laser Printer)
- On-Site and Deport Repair
- 180 Days Warranty
- Fast Turnaround
- **NEW & REMANUFACTURED TONER CARTRIDGES – OEM DRUM – SUPER DRUM – 100% GUARANTEED**
- Other Repair Services: IBM Compatible – Fax Machines – Monitors

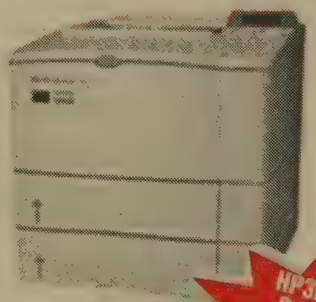
$27.95 HP4, HP5 Toner Cartridge exp. 6/30/98



• Limit one per customer! Exchange only.

Certified Factory-Trained Technicians

We Fix:
- HP
- APPLE
- CANON
- IBM
- PANASONIC
- SHARP
- EPSON
- OKIDATA
- NEC
- TI
- QUME
- FUJITSU
- QMS
- RICOH
- CITIZEN
- BROTHER



HP5D Duplex Printer Unit! $399 exp. 6/30/98

OKI DATA SPECIAL SALE
BRAND NEW PRINTERS

320 TURBO	$299
321 TURBO	$399
520	$399
521	$499
590	$499
599	$499
PACEMARK 3410	$1,495

LT LASER TECHNOLOGY

FREE ESTIMATES • FAX 408-241-7698

VISA **800-201-5107 • 408-241-7699** MasterCard

1765 Scott Blvd., Ste 117 (b/t El Camino & Warburton) • Santa Clara, CA 95050

ONE STOP FOR ALL YOUR PRINTER NEEDS

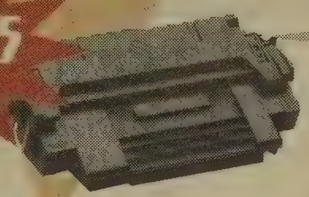
Experience The Highest Quality Of Service And Value From One Of The Fastest Growing Printer Service Centers In The Bay Area

REPAIRS

- Laser, DeskJet, Fax
- 6 Month Warranty
- Free Estimate
- Service Contracts
- Flat Fee Labor
- Free Loaners

HEWLETT PACKARD Authorized Dealer Sales & Service Center

$29.95 HP4



Prices are subject to change without notice.
While supplies last.

SUPPLIES

TONER CARTRIDGES

LJ II/III/IID/IIID
LJ IIP/IIP PLUS/IIIP
LJ 3SI/4SI/4SI MX
LJ 4/4PLUS/4M PLUS
LJ 4L/4ML
LJ 5/5N/5M
LW PRO 800/810
4019/4019 E
LJ 5LLJ 5P/5MP

CALL FOR YOUR PRINTER

15% OFF

LASER PRINTER REPAIR WITH THIS AD

WE'LL BEAT ANY COMPETITOR'S PRICE

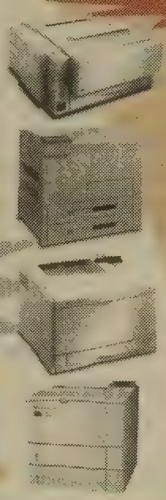
Apple brother COMPAQ NEC Panasonic LEXMARK OKIDATA Canon

*Note: All registered trademarks and logos are the properties of their respective companies.

SALES

BRAND NEW PRINTERS

REPAIRS & FACTORY 100% GUARANTEED



LaserJet 6Pxi. $718.95
Laser Jet 6MP $859.95

5si. $2289.95
5siMx. $3279.95

LaserJet 4000 . . . . $1079.95
LaserJet 4000T $1239.95

LaserJet 4000N $1379.95
LaserJet 4000TN . . . $1539.95

COMPUTER XTRAS XPRESS INC.

San Jose
1671 Rogers Ave
408-452-4080

J.A.I.A. Electronic Service Printer Division

1-888-774-LASER(voice) 1-888-554-LASER(fax)

San Francisco
452 4th, suite 354
415-788-5700
Office by appointment only

PROGRAMMING

SOFTWARE DEVELOPMENT in FoxPro, Visual Basic, and Access for networked PC environments. Design, development, and documentation. 15 years of professional experience. Gibson Engineering, Mark, 415-552-6165, or bark@well.com.

Databased Solutions

Delphi and Paradox aaplication development and training. Saur Consulting, 510-636-9656, or **asaur@compuserve.com.**

Database Applications. Visual FoxPro, Interactive Web programs, Clipper, Oracle Power Objects. Client Server and xBase. Custom design, modifications, or conversions. Since 1985. Paltiel Inc., 650-345-0152, or barbara@paltielinc.com.

CUSTOM PROGRAMMING, 21 developers on staff, Delphi, JAVA, Visual Basic, Paradox, Access. Client/Server experts. Call Greg at 408-866-8033 x100 for FREE CONSULTATION.

MONITOR REPAIR CENTER

10% OFF
ViewSonic
Sony • Mag
Offer Expires 6/30/98
Must bring in coupon to receive discount

We Specialize in:

Monitors for PC & Mac

$50 Flat Rate *Up to 14" PC Monitor Ex. FBT. CRT*

Brand New Monitors for Sale:

Three Year Warranty

17" .28mm AG Shadow Mask, G380 . . . . . $269
17" .25mm AG Shadow Mask, G387 . . . . . $339
17" .25mm AG Apacture Grilled, GA 387 . . $389
17" .25mm AG Professional, PA380 . . . . . $439
19" .26mm AG Shadow Mask, G400 . . . . . $499
21" .28mm AG Professional, PA630 . . . . . $799

Please check out our Web site for ***Refurbished Monitors***

www.moniserv.com

MoniServ Inc.

1-888-785-7288 or (510) 785-7288

2223-2227 Commerce Place
Hayward, CA 94545
Business Hours: 8:30am-5:30pm M-F; 10:00am-3:00pm Sat.

MONITOR REPAIR

FREE ESTIMATES • ALL MAKES & MODELS

12"-15" . . . . . $39 + parts
16"-18" . . . . . $68 + parts
19"-21" . . . . . $95 + parts

(415) 292-5623

1450A Bush St. San Francisco • www.boma-electronic.com
Monday-Saturday 9:30-6
BOMA ELECTRONICS SVC

CONSULTANTS' NETWORK

Affordable PC and Network Support
SET UP • UPGRADE • TROUBLESHOOT
Work Station, Server, Single System & Components. Complete Systems & Parts, Sales and Installation.

Your Networking Made Easier with:
Windows 95 & Workgroups, Lantastic & Novell, at Very Competitive Rates.

FAST!
Serving San Francisco and the East Bay
Call John Herring at
(510) 527-3711
Emergency voicemail pgr:
(510) 641-2608

"We do the best customized computing for you."

C & B

C & B SYSTEMS
We Service Many Corporate Clients

Providing: • Network Configuration
• Troubleshooting and Service

2355 Oakland Road • Suite #8
San Jose, CA 95131
(408) 456-6902 • Fax: (408) 456-6903

CONSULTANTS' NETWORK

BEN GORDON
PC CONSULTANT
WINDOWS NT | NETWORKS
WINDOWS 95 | INTERNET
WINDOWS 3.1 | HARDWARE
650.755.2284

Find the Balance You Need in the Consultants' Network!

DEVICE DRIVER FOR WIN 95/NT
NDIS and PCMCIA
TCP/IP Protocol
PCI/ISA/VCOMM
510-651-1889

Systems & Network Integration

Call John Romig at **408-866-8033** x114 to schedule a **FREE** consultation of your desktop system & integration. Founded in 1985, we are in the business of providing hardware and software solutions.

- Microsoft Win NT
- Network Design
- Exchange Server
- Project Mgmt.
- Novell

DeVries Data Systems, Inc.
Productivity Through Technology
www.dvdata.com
Microsoft Certified Solution Provider
3Com Net Working Partners program

Database & Software Development

- ✔ Access 97
- ✔ Visual Basic
- ✔ C/C++
- ✔ SQL Server
- ✔ Oracle
- ...and more

IT RUNS.... OR YOU DON'T PAY

DISCOVERY COMPUTER NETWORKS

1849 Willow Pass Rd. #206
Concord, CA 94520
1-510-691-1198
1-888-600-1222
"Call For Free Consultation"

Over 25 Yrs Experience
Training Included

LET US WRITE YOUR DRIVER!!
Since 1987

OUK Co. Ltd. can develop device drivers for your software & hardware to fit within the Japanese computer environment.

Our Experience in Device Development Includes:
- Device drivers for input and output
- Graphics control software
- Built-in software
- Product management system software
- General applications

We can develop the device driver for your products.
Call toll free **1-877-364-8630** for more information

http://www.ouk.co.jp OUK e-mail:yamas09@ibm.net

NETWORK PRINTING

- *Networking*
- *Website Development*
- *Computer Repairs*
- *Laser Printers*

NOVELL.
IBM® Business Partner
Since 1991
HEWLETT PACKARD Authorized Reseller

American Laser Products
Toll Free: 877-Laser-R-Us
925-449-1805

Cooperative Digital
design, consulting, implementation, service

- •WinNT/95/98 •MacOS •MS BackOffice Solutions
- •Routing: Cisco, Ascend, Unix: custom Linux-based routers
- •Microsoft Certified Systems Engineers
- •Embedded & customized Linux solutions
- •Telephone systems: PBX and voicemail
- •LAN, WAN •Voice/data network cabling: C3, C5, Fiber

510-644-8085
www.coopdigital.com
100% employee-owned
Excellence in action!

AmiSys®
Specialists in Serving the Banking Industry

Experts in:
Visual Basic
Microsoft Access
Microsoft SQL Server
WEB & Client/Server Solutions

Convert your VB Applications and Reports to the WEB!
Visit our Web Page at www.amisysinc.com or call (925) 246-1530 for information

PROGRAMMING

Intro Web Package - $295
The easy, affordable way to put your business on the web now! Call or visit our site for details. Solon Systems Consulting 1-800-286-1782, or www.solonsystems.com.

Custom Software Development. Visual Basic, MSACCESS, SQL SERVER, C Under NT & 95. Industry experience. References. 925-462-4901, or FM150@AOL.COM.

C/C++ Programming
Communications and client-server. Internet projects. Windows 95/NT LAN setup and troubleshooting. Mick 1-800-334-0042, or www.lilly-pad.com.

INTERNET/INTRANET DATABASE DEVELOPMENT. Database application development for the Internet and internal corporate intranets on your Web server or ours. Secure data transmission (encryption) available. Clients include: HP, Wells Fargo, Varian, New York Life. Aardeus, Inc. 408-615-8423.

http://objectoriented-group.com. Professional software development in Visual Basic, Access, Foxpro, Powerbuilder using ORACLE, MS SQL Server, SYBASE. Client list includes: PG&E, Pacific Bell, Stanford Univ., and Aon Risk Services. Visit our Web site or call: 510-713-2906.

CONSULTANTS' NETWORK - PROGRAMMING

Internet/Network Consulting
WWW/Internet Servers, Novell, AppleShare, LAN, WAN
Unix/NFS, System Administration

Database Design
PowerBuilder, 4th Dimension, FoxPro, FileMaker Pro

Software Development
Mac & Win, C, C++, Pascal, AppleTalk, TCP/IP, MacApp, TCL

The Stradivarian Group
Professional Computing Services
(408)257-4482 info@tsgus.com

Windows & LANs
Custom software using Visual Basic - Access - C since 1979
SYSPRO Corp.
(510) 254-9755

Contract Engineering Services
'Round Noon Software
Custom Business and Financial Solutions. NT Backbone Programming, UNIX to NT Conversion, Internet Systems Development. C++, Java, Perl, HTML
Call Jim Aragon, President @ 972-789-2902
www.roundnoon.com

Web Application Development
We are experts at converting VB, Powerbuilder, MS Access and Foxpro applications into JAVA based applications that run over the Internet.

Try out our sample web application at http://objectorientedgroup.com

(510)713-2906

Custom Database Systems
- Client/SQL Server
- FoxPro
- Microsoft Access
- Visual Basic
- Visual C++
- Internet/Web
- NT & UNIX Networking
- Accounting

ST JOHN BUSINESS SYSTEMS (510) 549-9165 SBS

VISUAL SOLUTIONS
• Database Design (Access, SQL, Oracle, Sybase)
• Software Development (C/C++, VB, Cobol, xBase)
• Networking (Novell, NT, Internet)
• Turn-key Office Solutions
We figure out how to! 925-671-9451 • VS@Visualscs.com

Web-Site Design
Web-Site Development
• Low-Cost Design
• 3D Graphics, Programming
Web-Site Management
• Updates & Improvement of Site
• Site Maintenance (Web Hosting Services Available)
SUNNY-GRAPHICS
http://www.sunnygraphics.com
Phone: (408) 954-8777

eLine
since 1993
A Web Applications & Database Development Firm
JAVA, Database, Design,
Hosting & Consulting Services
415.543.0760 • www.eline.com

RPS TELEDATA
The LOW PRICE Cabling Experts
Installing Tomorrow . . . Today!
Fiber-Optic Twisted Pair Coaxial
(510) 980-2714
CA Contractors License #688214

Novell Gold Authorized Reseller
Installation
Management
Sales
2 CNE's ON STAFF
Abbott Computer Services
(510) 234-5618

MicroTimes Classifieds
Great Values & Hard-to-Find Services
510-768-1200

CAREER OPPORTUNITIES

Retail Computer/Software Company

Seeks store manager for our Fremont store. Sales and management experience required with good communiction skills a plus. Flexible schedule a must. This position offers excellent salary, commission, paid vacation, paid sick leave and great emloyee discounts. Fax resume to 408-743-5655.

SALES - PC integrator in Fremont looking for entry level inside salesperson. Customer oriented, PC hardware knowledge needed. Base + commission. Fax Resume to: 510-226-6758, UMiracle.

SYSTEMS ENGINEER: analyze, design, test, troubleshoot computer system. B.S. in Computer Engineering or its equiv. 2 yrs exp in both computer hardware and software level. $4.8k/mo. 10am-6pm. Job site interview in San Jose headquaters. Send resume to: **For-U-Computer Inc.,** 765 Mabury Rd, San Jose, CA 95133.

COMPUTER USERS NEEDED- Work own hours. 20K - 70K per year. Call: 800-348-7186, Ext. 5200.

PC Pros INFORMATION STAFFING- Jobs Available now! *Technical: PC/Mac Specialists, Database Programmers, Network Administrators, Minicomputer Operators administrative: Word Processors, Data Entry. *Graphics/New media: Graphic Artists, JAVA / Perl Programmers. **Call: 888-727-7764 or visit our Website: www.pcprosis.com**

TRAINING

Computer Graphics Training

-3D Animation Courses: Softimage, Alias-power animator; Adobe Photoshop Train on the Silicon Graphics Workstations-Indy, O2. Become a highly in-demand Graphics Animator & Designer. CGAI 1887 O'Toole Av #C-203 San Jose, CA 95131, 408-954-8777, or www.sunnygraphics.com/cgai.

WORDPERFECT EXPERT. Training, optimization, productivity planning. Macro/template programming. Profiled in InfoWorld and WordPerfectMagazine. 415-921-6850, or http://www.microCounsel.com.

Increase your skills, marketability and income... Train to be a Microsoft Certified Systems Engineer. GET YOUR MCSE NOW! Resolution Training & Consulting of San Francisco, 415-391-3210.

Practical Training for MCSE & Win 98

MCSE, Windows NT Server and Workstation hands-on practical training sessions are starting at Samtech Research's training center in Fremont. Courses are conducted by MCSE certified trainers. Windows 98 training session also starting for beginners. $50 rebate for first 5 users. Tuition fee per course is $200. Contact Salina at 510-252-0441 or email us at **samtech@technologist.com.**

NOW
NOW ELECTRONICS, INC.
Has an Opening for Computer/Network Sales
Expanding network solutions provider looking for an energetic dynamic individual with 2+ years in computer sales to handle business and corporate accounts. **Excellent compensation for top performers!**
Fax resume and cover letter to:
NOW ELECTRONICS, INC. (408) 654-9463

Build Your Customer Base with MicroTimes Classifieds
We Can Help You Design An Ad That *Works* & Is Budget Friendly!
Larry Nusbaum
510-768-1200

Looking for an easier way to find a high tech job?
Let DICE do it for you.
JobTools by DICE.
www.dice.com
dice
High tech jobs online
Real Jobs. Real Fast. DICE: 515-280-1144

Does Your Company Have Technical Job Openings?

Target Qualified Professionals with MicroTimes.

Our readership sets us apart!

- **68%** *hold bachelor's degrees or higher*
- **50%** *have over 10 years computer experience*
- **48%** *are managers, engineers, or programmers*

MICROTIMES™
CLASSIFIEDS

For info call Larry Nusbaum
Classifieds Account Executive
(510) 768-1200 • E-mail: larry.nusbaum@microtimes.com

SYSTEM SOFTWARE ASSOCIATES, INC.

SSA is where you Need to be IN SOFTWARE

Technical Experts

SSA is on a roll! Offering the fastest time to benefit, with our revolutionary BPCS Client/Server v.6 offering the most robust, powerful, and state-of-the-art Client/Server applications-on the world's leading hardware & database platforms.

Marketing to the industrial sector, our software is used in over 90 countries and in 20 languages by 8500+ clients (ranging from single sites to hundreds of locations), at 25,000 sites, and 3,000,000 end users.

Whether you're from the software industry, a consulting firm, systems integrator, or manufacturing company...here's a terrific career & income opportunity to work with the very best people, resources & technologies. See for yourself!

The BPCS Client/Server product suite delivers coampetitive advantage by integrating all mission critical operations from global financials to multi-mode manufacturing to management of the total supply chain, including Electronic Commerce and EDI. SSA's Distributed Object Computing Architecture (DOCA) provides the computing platform choice, whether IBM AS/400 or RS/6000, Digital, Hewlett-Packard, a combination of these or server access via the Internet. Database options include Oracle, Informix and DB2/400.

Based on aggressive sales & growth, we're currently interviewing for:

- **AS/400 Technical Implementation/Integration Consultants**
  Deliver technical solutions/translate client business processes/technical requirements into solutions using our CASE tools, integration technology, and technical project life-cycle methodology. BPCS, AS/SET - RPG, AS/400 - EDI and/or other ERP preferred.
- **Technical Implementation/Services Manager**
  Lead our 10 person Western Area technical consulting team, including resource development/scheduling, staff mentoring and training, client visits with Sales team for implementation planning. Key required skills: project management, client interface/relationship-building, some knowledge of AS/400 and UNIX.
- **Systems Administrator**
  Support of network infrastructure, PC's and laptops for Western Area sales and service teams. Required skills: Win 95 and networking. Preferred: NT, Lotus Notes, AS/400.
- **EC/EDI Technical Consultants**
  Use your EDI products knowledge and AS/400 systems integration skills to assist SSA clients in implementing their ERPII-based EC/EDI strategies & programs. 5+ years EDI & systems integration/developer experience, excellent communications & project management skills.

Record Breaking Sales... Major corporate clients worldwide...
Industry's fastest time-to-benefit... Unmatched global support...

Our salaries, bonuses, and commission structures can't be beat!

Note: Relocation typically not required. You can be based at your home office.

For immediate consideration, forward your resume to:
John Wagner, System Software Associates, One Market, Steuart Tower, Suite 2200, San Francisco, CA 94105, Fax: 415-537-2494. E-Mail: jwagner@ssax.com Web: http://www.ssax.com

Equal opportunity employer m/f/d/v.

Computer Classrooms

Rental Includes:

Continental Breakfast	Full T-1
Pentium® II 300 Mhz	64 MB RAM
LCD Projector (550 lumens)	17" Monitors

DeVries Data Systems, Inc.
10 minutes from San Jose Airport
1-888-866-8033 www.dvdata.com alex@dvdata.com

GET THE TRAINING YOU NEED TO GET A GREAT JOB!
1-800-688-2375

Certification Programs

Practical Training For MCSE

- MCSE Certified Trainers
- Tuition only $200
- Hands-on Practical Training
- Visit Us at http//www.reelcity.com
- $50 Rebate for First 5 Students

SAMTECH RESEARCH

SR

46560 Fremont Blvd., Bldg. 114
Fremont, California 94538
Phone: 510-252-0441
Fax: 510-252-0443
Email: samtech@technologist.com

GREAT VALUES AND HARD-TO-FIND SERVICES

MICROTIMES CLASSIFIEDS

(510) 768-1200

Learn what it takes to:

GET IT CERTIFIED

for more infomation call
Global Information Services 24 hrs
(925) 746-8284
(800) 848-2320
NT Novell Oracle A+ Office User

New! Computer Classroom Seminar Rental Space

- Located on San Francisco's Technology Hill
- Fast T1 Connection • Pentium and Mac Computers

Call today to schedule your training class, seminar, or corporate event in our fantastic, new facility. Ask about our special introductory rates.

Caxton INCORPORATED

(415) 552-5535 Call Today!
www.caxton-inc.com
Corporate Training Specialists

CLASSIFIED ADVERTISING SECTION

Be Prepared for Any I.T. Challenge!

ForeFront offers the fastest and easiest way to fully prepare you for a successful career in the ever expanding Information Technology (IT) industry. Our Self-Study Courses are 100% computer-based training (CBT) on CD-ROM to give you flexibility unmatched by traditional training methods. Study at your own pace using our proven step-by-step format, whenever and wherever it's convenient for you!

- Gain Valuable Knowledge, Recognition and Skills
- Boost Your Income
- One-on-One Training Consulting
- Increase Your Job Opportunities and Advancement
- Self-Paced Format, Study Whenever You Want
- Interactive Hands-on Exercises

Become MCSE Certified...FAST!

The ForeFront MCSE Self-Study Course™ ensures the highest rate of information retention so that when you complete your training you'll be fully prepared to pass your MCSE exams. You'll be ready and confident to go into the workplace to effectively plan, implement, maintain and support information systems in a wide range of computing environments using Windows NT and other Microsoft® Server products.
Call now to get more details!

Become A+ Certified...FAST!

Getting A+ Certified will help open the way to further advancement in the high-tech industry. **The ForeFront A+ Self-Study Course™** is a hands-on self study course that will give you all the technical material, knowledge and interactive exercises you'll need to pass your exams and excel in today's competitive PC repair marketplace.
Call now to learn more!

Become CNE Certified...FAST!

The ForeFront CNE Self-Study Course™ provides fast, effective and convenient training to anyone wishing to become a Certified Novell Engineer, even when hampered by a busy schedule. Our CNE CBT allows you to learn and practice *everything* you'll need for full Novell certification. **Call now for more information!**

Introduction to PC Repair Self-Study Course

Provides you with the easiest and most effective way to learn the fundamentals necessary for a profitable and successful career as a PC Repair Technician. Ideal for individuals new to the IT profession!
Call now for more information!

- Free Technical Support
- Expert career consultants
- Next Day Shipping
- Performance Guaranteed

MasterCard VISA AMERICAN EXPRESS DISCOVER/NOVUS

Call for Special Discount Pricing Today!

1-800-475-5831

(800) 653-4933 • (813) 724-8994 • FAX (813) 726-6922

FOREFRONT™

25400 U.S. Hwy. 19 N., #285
Clearwater, FL 33763

MTM

Copyright ©1998 ForeFront Direct, Inc. All Rights Reserved. ForeFront MCSE, CNE, A+ Certification and Introduction to PC Repair Self-Study Courses are trademarks of ForeFront Direct, Inc. The ForeFront Logo is a trademark of the ForeFront Group, Inc. All other trademarks are the properties of their respective holders. ForeFront Direct, Inc. is a subsidiary of ForeFront Group, Inc.

GET TRAINED
GET CERTIFIED
GET PAID

(510) 793-4342

Microsoft® Certified Systems Engineer Training

- Fully Accredited
- Taught by actual network engineers
- Federal Student Loans Available for Qualified Applicants

SANTA BARBARA BUSINESS COLLEGE

Fremont Campus
(510) 793-4342
4333 Hansen Avenue
Fremont, California 94536

Microsoft Certification

Get the **training you need** to become a **Microsoft® Certified**

Windows NT 4.0 Professional...

- NT Cluster Server
- Internetworking with TCP/IP
- NT Server 4.0 Enterprise
- MS Firewall Proxy Server
- MS Exchange Server 5.5
- Microsoft Certified Trainers
- Competitive Prices
- Student Practice Labs & Exams
- Free Course Retakes
- 100% Satisfaction Guaranteed

Day & Evening MCSE Programs

San Jose & Fremont Locations

Get Started Today!

1-888-825-MCSE TOLL FREE

e-mail: training@unitek.com
http://www.unitek.com

Authorized Technical Education Center Microsoft

Unitek
NETWORK EDUCATION
MICROSOFT AUTHORIZED NT TRAINING CENTER

You could sit in a boring classroom for eight hours a day.

... but we wouldn't recommend it.

DO IT ONLINE!

CyberState University
AN INTERNET CORPORATION
The World Leader in Online Certification Training

Call (888) GET-EDUCATED
Visit http://www.cyberstateu.com

NEW! HOT!

- MCSE
- CNE
- CNA
- Computer Telephony Engineer (CTE)
- Dual CNW/MCSE (only $4995)
- MCP+ Internet
- A+

Authorized Technical Education Center

Microsoft Certified Solution Provider

Multi-Vendor Network Analysis Training

Taught by the experts in network troubleshooting.

Since 1989, Pine Mountain Group, Inc. has successfully diagnosed critical network problems for major corporations. Our diagnostic excellence and experience is conveyed in our fast-track training. The Institute offers an objective approach focused on theory, methods and techniques of network analysis on any vendor's product.

Sniffer, Fluke & Microsoft NetMon Training! Some evening classes offered

Five Great Reasons to Attend

- Learn to solve complex network problems from accomplished network analysts.
- Hands-on re-creation of real problems to build skills.
- Theory with practical application.
- Attended by the best & brightest in the industry – over 15,000!
- Certified NetAnalyst testing.

Classes held in these California Locations

Sacramento	June 8-12
Silicon Valley	June 15-19
Silicon Valley	July 20-24
Orange County	August 10-14
Silicon Valley	August 17-21
Silicon Valley	Sept. 28- Oct.2

Call now and sign up for the Tip of the Month & Event Schedule

800-645-8486

Visit our web page at www.pmg.com

Pine Mountain Group, Inc., Box 849, Groveland, CA 95321

NETWORK ANALYSIS Pine Mountain Group INSTITUTE

Increase your skills, marketability and income...

GET YOUR MCSE NOW!

Get Industry recognition, increase your earning potential, and enter a high demand job market with tremendous growth opportunity.

Train to be a Microsoft Certified Systems Engineer

Integrated MCSE preparation course includes:

- 70 hours classroom instruction (10 weeks)
- 5 textbooks (a $250 value)
- Instructor-led exercises
- Unlimited Independent lab time
- Access to practice tests
- Free use of computer based training courses
- Instructors have teaching & MCSE credentials and significant real-world teaching and consulting experience
- Evening and weekend schedules
- Downtown SF location near public transportation
- Unbeatable price and quality
- Instructor owned &

Complete package: $2995

415-391-3210
www.resolutioninc.com
Resolution Training & Consulting, Inc.
414 Mason Street, Suite 502, San Francisco
Mon-Fri: 12-9:30pm, Sat. 9am-6:30pm, Sun: by appt

Our Focus is Your Success!

UC BERKELEY EXTENSION

- *Windows - NT Workstation + Server, 95/98*
- *Microsoft MCP/MCSE/MCSD Certification*
- *Novell CNA/CNE*
- *SCO UNIX*
- *PC Systems Specialist*
- *Ascend & Cisco Routers*

Certificate Programs

See Page #s 149, 150, 161, 153, 156 in Summer 1998 Catalog.

Classes at FREMONT & OAKLAND
(Short walk from 12th St. BART)

(510) 642-4111

COMPUTER GRAPHICS ART INSTITUTE

www.sunnygraphics.com/cgai

S.F. / SAN JOSE

COMPUTER GRAPHICS TRAINING

Become highly in demand as a 3D Graphics Animator & Designer

- 3D Animation Courses
- SoftImage
- Alias MAYA
- Adobe PhotoShop

Train on the Silicon Graphics Workstations—Indy, O2
(Consignment lease on SGI Workstations available)

CGAI SF / 415-255-4513; San Jose / 408-954-8777

THE ADDRESS FOR SUCCESS

http://www.aics.edu

- Earn B.S. and M.S. in Computer Science
- DISTANCE EDUCATION
- Object oriented B.S. program
- New courses in Java, Networking, HTML, MIS
- Approved by more than 275 companies
- Follows ACM/IEEE guidelines

AMERICAN INSTITUTE FOR COMPUTER SCIENCES
The leading edge of learning

STATE LICENSED AND APPROVED

FREE CATALOGUE
1-800-767-AICS or www.aics.edu

GET TRAINED
GET CERTIFIED
GET PAID

(510) 793-4342

Microsoft® Certified Systems Engineer Training

- Fully Accredited
- Taught by actual network engineers
- Federal Student Loans Available for Qualified Applicants

SANTA BARBARA BUSINESS COLLEGE

Fremont Campus
(510) 793-4342
4333 Hansen Avenue
Fremont, California 94536

Earn Your Accredited B.S. Degree studying at home!

Grantham College of Engineering

Your first step to a better future!

Offers 3 Distance Education B.S. Degree Programs in:

- **Computer Science**
- **Electronics Engineering Technology**
- **Computer Engineering Technology**
- **Courses include: JAVA, C/C++, Visual Basic 5, Networks and more**

CALL NOW!

- Electronics WorkbenchProfessional 5.0 included on our B.S.E.T. curriculums
- Approved by more than 400 Companies, VA and Dantes, (tuition assistance avail.)

SINCE 1951

EXCEL TO YOUR FULL POTENTIAL
For a free program catalogue call
1-888-GCE-4242
http://www.grantham.edu

DETC

You could sit in a boring classroom for eight hours a day.

... but we wouldn't recommend it.

DO IT ONLINE!

CyberState University
AN INTERNET CORPORATION

The World Leader in Online Certification Training

Call (888) GET-EDUCATED
Visit http://www.cyberstateu.com

NEW! HOT!

- MCSE
- CNE
- CNA
- Computer Telephony Engineer (CTE)
- Dual CNW/MCSE (only $4995)
- MCP+ Internet
- A+

NEED ADOBE TRAINING?

Adobe Expert Instructors!

- FrameMaker
- FrameMaker+SGML
- Acrobat
- Photoshop
- PageMill
- PageMaker

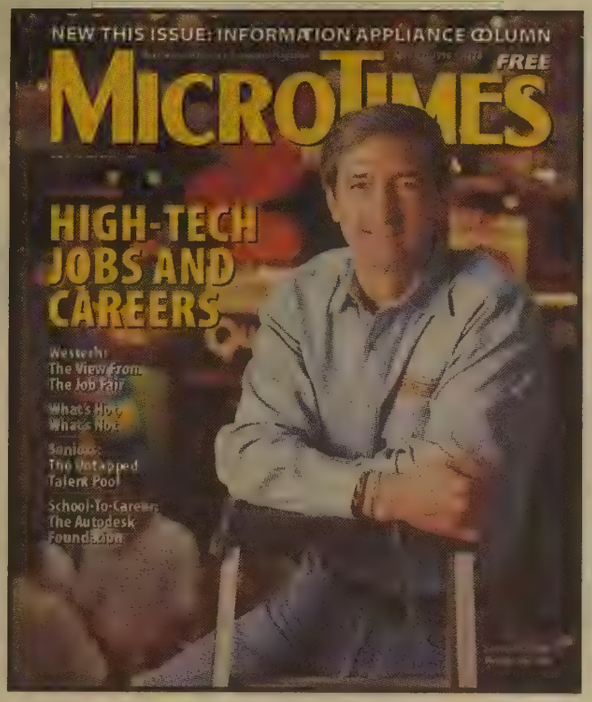
Training, Software and Consulting -San Francisco -San Jose

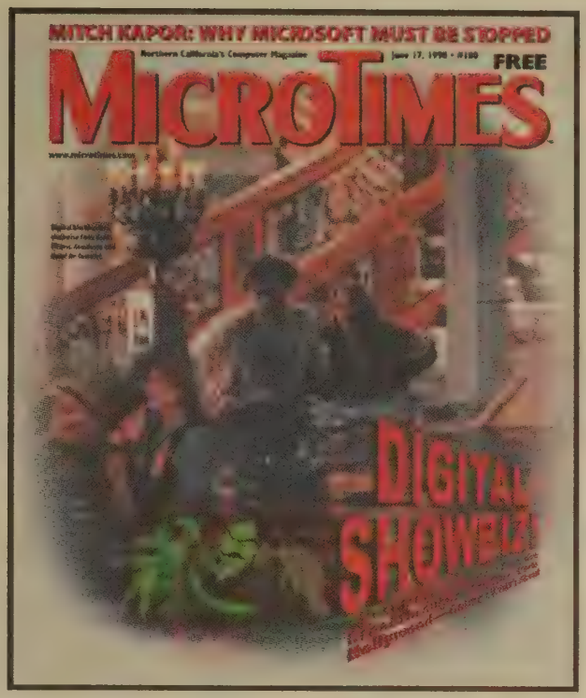
Adobe ADOBE AUTHORIZED LEARNING PROVIDER

www.caxton-inc.com
(415) 552-5535 Register Today!
Corporate Training Specialists

Authorized Technical Education Center

Microsoft Certified Solution Provider





Does Your Company Get *MicroTimes*?

Don't be left behind. In the high-tech industry, missing just one issue of ***MicroTimes*** may leave your company technologically stranded. We understand this, which is why ***MicroTimes*** is delivered FREE to business locations throughout the Bay Area.

If your company can utilize 100 or more issues of ***MicroTimes*** a month, complete this form and fax it to us at (510) 768-1288. That's all you have to do. ***MicroTimes*** will then be delivered to your location each month. And you won't miss our informative articles focusing on "Business on the Internet," "Enterprise Computing," "High-Tech Careers," and many other timely subjects.

So don't be left behind. Get ***MicroTimes*** delivered to your company now!

For more information call
MicroTimes (510) 768-1200

YES! My company would like to receive *MicroTimes:*

Company Name:

Contact Name:

Address:

Floor # Suite # Building:

Cross Street:

City, State, Zip:

Phone:

Number of Copies Desired: 100 200 500 Other:

Best Time to Deliver: Early AM Afternoon

Comments:

Fax to: (510) 768-1288

MICROTIMES™
www.microtimes.com

Excellent Computers & Networks Since 1990

POWER SERVER
INTEL DUAL PENTIUM® II

- Intel N440BX AGP Motherboard
- 64MB High Performance SDRAM
- 1.44 Floppy Drive
- 4.3GB Ultra-Wide SCSI Hard Drive
- 2MB PCI Built-in Board
- Toshiba 32X CD-ROM Drive
- Intel EtherExpress Pro 10/100 Network Card
- Dual Channel SCSI Controller
- Yamaha Sound Card w/120-Watt Stereo Speakers
- Deluxe ATX Full Tower w/3 Cooling Fans w/300 Watts
- Mitsumi Windows 95 Keyboard
- Microsoft PS/2 Mouse w/Pad Monitor Sold Separately

Intel PII MMX 300 $1558

Intel Pentium® II MMX 350 ..... $1788
Intel Pentium® II MMX 400 ..... $1998

DUAL PERFORMER
INTEL DUAL PENTIUM® II

- Asus P2B-D 440BX Motherboard w/512K Cache
- 64MB SDRAM
- 4.5GB Ultra IDE Hard Drive
- 1.44 Floppy Drive
- Diamond 3D 2000 Pro w/4MB
- Intel EtherPro + 100Mbp Network Card
- ATX Full Tower Case w/300 Watt PS
- Mitsumi 104 Keyboard
- PS/2 Mouse w/Pad
- Toshiba 32X Speed CD-ROM
- Yamaha 3D Sound Card 120 Watt Speakers
- Monitor Sold Separately

NETWORK READY

Intel Pentium® II MMX 266 ..... $1138
Intel Pentium® II MMX 300 ..... $1238
Intel Pentium® II MMX 333 ..... $1358
Intel Pentium® II MMX 350 ..... $1498
Intel Pentium® II MMX 400 ..... $1698

ENTERPRISE PRO
INTEL PENTIUM® II

- Intel AL440LX AGP Motherboard w/512K Cache
- 32MB High Performance SDRAM
- 1.44 Floppy Drive
- 4.3GB EIDE Hard Drive
- Diamond 3D 2000 Pro w/4MB
- Toshiba 32X CD-ROM Drive
- Intel Etherpro 100Mbp Network Card
- Yamaha 3D Sound Card
- 120-Watt Stereo Speakers
- Deluxe ATX Medium Tower
- Mitsumi Windows 95 Keyboard
- PS/2 Mouse w/Pad
- Microsoft Windows 95 w/CD & Manuals
- 17" SVGA Color Monitor .26dp

Intel PII MMX 233 $1158

NETWORK READY

Intel Pentium® II MMX 266 ..... $1198
Intel Pentium® II MMX 300 ..... $1338
Intel Pentium® II MMX 333 ..... $1458

BUSINESS 3D PRO

- Intel ASUS P2L97 Motherboard w/512K Cache
- 32MB SDRAM 10ns
- 3.2GB Enhanced IDE Hard Drive • 1.44 Floppy Drive
- Diamond 3D 2000 Pro w/4MB
- Diamond Monster 3D W/4MB
- 24X CD-ROM Drive • 56K Fax/Modem w/Voice
- Deluxe ATX Medium Tower
- Yamaha 3D Sound Card
- 120-Watt Stereo Speakers
- Mitsumi Windows 95 Keyboard
- PS/2 Mouse w/Pad
- Microsoft Windows 95 w/CD and Manuals
- 15" SVGA 0.28 Color Monitor

Intel PII MMX 233 $1088

Intel Pentium® II MMX 266 ..... $1138
Intel Pentium® II MMX 300 ..... $1258
Intel Pentium® II MMX 333 ..... $1388
Intel Pentium® II MMX 350 ..... $1598
Intel Pentium® II MMX 400 ..... $1958

HOME OFFICE PRO

- Intel 440LX AGP Motherboard w/512K Burst Cache
- 32MB 10ns SDRAM
- 2.1GB Ultra DMA IDE Hard Drive
- 1.44MB Floppy Drive
- S3 PCI SVGA 2MB w/MPEG
- 24X CD-ROM Drive
- 33.6 Int. Fax/Modem w/Voice
- Yamaha 3D Sound Card
- 120-Watt Stereo Speaker
- PS/2 Mouse w/Pad
- Mitsumi Windows 95 Keyboard
- Deluxe ATX Mid Tower
- Windows 95 CD & Manuals
- 14" SVGA Color Monitor .28dp

Intel PII MMX 233 $888

Intel Pentium® II MMX 266 ..... $938
Intel Pentium® II MMX 300 ..... $1038
Intel Pentium® II MMX 333 ..... $1158

MULTIMEDIA VALUE

- Asus SP 97 Motherboard w/512K PB Cache
- 16MB EDO RAM, 60ns
- 2.1GB EIDE DMA Hard Drive
- 1.44 Floppy Drive
- 24X CD-ROM Drive
- PCI SVGA w/1MB MPEG
- 33.6 Fax/Modem w/ Voice
- Yamaha 3D Sound Card
- 120-Watt Stereo Speakers
- Mitsumi Windows 95 Keyboard
- Deluxe Mini Tower
- MS Compatible Mouse w/Pad
- Microsoft Windows 95 w/CD & Manuals
- Monitor Sold Separately

Intel 200MMX $558

INTERNET READY

Intel Pentium® MMX 233 ..... $598
AMD K6 MMX 200 ..... $538

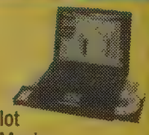
1-Year On-Site Service Included Nationwide!

14" PERFORMER NOTEBOOK

- 14.2" Active Matrix Color Screen
- 512K L2 Cache
- 20X CD-ROM
- 1.44 Floppy Drive
- 16-Bit Sound Card
- 4MB Video RAM, MPEG
- 2V Port for MPEG Card Supports CDi Movies
- One TV-Out Port for Display on TV Set
- Built-in Infrared Port for Wireless Remote Communications
- PCMCIA Slot
- Pointing Device
- Li-Ion Battery
- Carrying Case

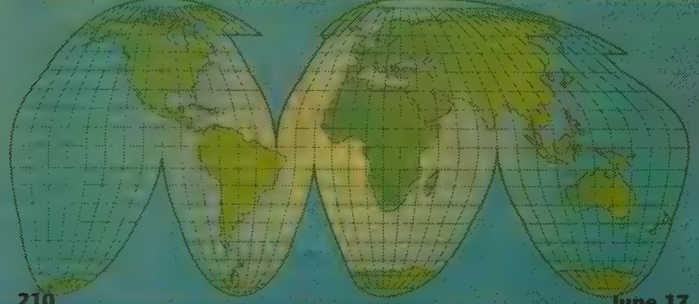
14.2" TFT Display	CPU	2.1 GB	3.2 GB	4.0 GB
w/32MB 20X CD	200 MMX	$2099	$2159	$2299
	233 MMX	$2159	$2199	$2359

12" MULTIMEDIA NOTEBOOK



- 256K L2 Cache
- 20X CD-ROM
- 3.5" Floppy Drive
- 16-Bit Stereo Sound System
- 2MB Video RAM, MPEG
- One PCMCIA Type III or Two Type II Slot
- ZV Port for MPEG Card Supports CDi Movie
- Multiple I/O Ports
- One TV-Out Port for Display on TV Set
- Built-in Infrared Port forWireless Remote Communication
- Ni-MH Duracell Smart Battery System
- Touch Pad Pointing Device

12.1" Display	CPU	Dual Scan	Active Matrix
w/16MB	200 MMX	$1299	$1359
2.1GB, 20X CD	233 MMX		$1559



1503 North Milpitas Blvd.
Milpitas, CA 95035
Tel: (408) 263-8088 • Fax (408) 263-4588
Hours M-F 9-7, Sat 10:30-4

Visit Our 3000' Showroom • 1000s of Items in Stock!

CPUs

Intel Pentium® Pro 150/180/200MHz ..$148/189/488
Intel Pentium® MMX CPU
166/200/233MHz ..$95/99/118
AMD K-6 166/200/233MHz MMX ..$79/89/99
Intel® Pentium® II 233/266MHz MMX ..$168/199
Intel® Pentium® II 300/333MHz MMX ..$309/409
Intel® Pentium® II 350/400MHz MMX ..$519/719

MOTHERBOARDS

INTEL

"Providence" Dual Pentium® Pro (ATX) ..$208
"Venus" Pentium® Pro (ATX) ..$89
"Anchorage" Pentium® w/512K (ATX) ..$108
"Atlanta" Pentium® II 440LXA ..$128
"Dakota" Dual Pentium® II 440LXA ..$468
"Seattle" Pentium® II 440BX ..$188
"Night Shade" Dual Pentium® II 440BX ..$598

ASUS

P2L97 (ATX) ..$118
P2L97S ..$199
P2L97D ..$258
P2L97DS ..$338
P2B98 Intel 440BX ..$158
P2BS Intel 440BX w/2940 UW SCSI ..$298
P2BS Intel 440BX Dual Pentium® II ..$318
TXP4 w/512K PB (AT) ..$88
TX97E w/512K PB (AT) ..$98
TX97XE w/512K PB (ATX) ..$108
TX97X w/Audio w/512K PB (ATX) ..$168

CD-ROMS

TOSHIBA

32X EIDE ..$78
24X EIDE ..$68
32X SCSI ..$108

MITSUMI

24X EIDE ..$68

CD-WRITER

HP

SureStore C6020I 6X Read 2X Write ..$399

YAMAHA (Retail)

CDR-4260i 6X 4X 2X Rewriteable (SCSI) Int. ..$558
CDR 4260I 6x4x2 Rewriteable (IDE) Int. ..$399
CDR 4260E 6x4x2 Rewriteable (SCSI) Ext. ..$599

PANASONIC

4x8 SCSI CDR ..$399

MULTIMEDIA

SOUND CARD & SPEAKERS

16-Bit SB Compatible ..$19

CREATIVE LABS

Sound Blaster 16 PnP ..$46
Sound Blaster 16 IDE PnP ..$58
Sound Blaster 64 AWE PnP Retail Box ..$118
Sound Blaster 64 AWE & Gold w/4MB ..$158
Sound Blaster SB Encore DVD Kit NEW! ..$258

YAMAHA

M7 Speaker ..$48
M15 Speaker ..$78
System 35 w/subwoofer ..$149
System 45 w/subwoofer ..$189

BIG SCREEN MONITOR SUPER SALE

SONY
17" 200ES TRINITRON 1280x1024 .25DP PNP
$478

15" 100ES 1280x1024 .25dp SVGA ..$288
17" 200ES 1280x1024 .25dp SVGA ..$478
17" 200GS 1600x1280 .25dp SVGA ..$588
19" 400PS 1600x1200 .25dp SVGa ..$898
20" 20SE2T 1600x1280 .25dp SVGA ..$1458
21" 500PS 1600x1280 .25dp SVGA ..$1288

VIEWSONIC
21" P815 1800x1440 .25DP PNP
$1158

17" G771 1280x1024 NI .28dp SVGA ..$358
17" PT770 1600x1280 NI .25dp ..$568
17" PT775 1600x1280NI .25dp ..$618
19" G790 1600x1280 .26dp ..$678
20" G800 1600x1280 .28dp ..$888
21" G810 1600x1280 .25dp ..$908
21" P810 1600x1280 .25dp ..$1038
21" PT813 1600x1280 .25dp ..$1238
21" P815 1800x1440 .25dp ..$1138
29" 29GA ..$1999

NEC
17" A700 1280x1024 SVGA PNP
$458

15" A500/E500 ..$218/$268
17" A700/M700 ..$458/$548
21" P1150 1600x1280 .28dp ..$1178

NANAO

17" FX-C5 1280x1024 .28dp SVGA ..$688
17" TXC-7S 1600x1280 .25dp SVGA ..$988
21" FX-E7 1600x1280 .28dp SVGA ..$1618

IIYAMA
19" VISIONMASTER 450
$758

17" 9017E 1600x1280 .25dp SVGA ..$558
19" 450 1600x1200 .26dp SVGA ..$759

SONY (OEM)
20" 1600x1280 TRINITRON .25dpi
$999

15" 1280x1024 .25dp ..$269
17" 1280x1024 .25dp ..$438
20" 1600x1280 .25dp ..$999

VIDEO CARDS

S3 775 PCI Video MPEG 1MB ..$25
S3 3D MPEG 2MB EDO ..$35
S3 3D MPEG 4MB EDO ..$48

ATI

3D Pro Turbo PC2TV 8MB SGRAM ..$163
3D Expert Work 4MB AGP ..$78
3D Expert Work 8MB AGP ..$98
3D Expert Play PC2TV 4MB AGP ..$98
3D Expert Play PC2TV 8MB AGP ..$118
All-in-Wonder Pro 4MB AGP ..$218
All-in-Wonder Pro 8MB AGP ..$258

DIAMOND

Stealth 3D 2000 PCI 2MB/MPEG EDO ..$45
Stealth 3D 2000 PCI 4MB/MPEG EDO ..$58
Stealth 3D 4000 4MB AGP ..$78
Fire GL 1000 Pro 8MB AGP ..$168
Fire GL 1000 Pro 4MB AGP ..$138
Viper 330 4MB AGP ..$88
Viper 330 4MB PCI ..$88
Monster II 3D 8MB ..$198

NUMBER 9

Imagine 128 Series 2 4MB VRAM ..$299
Imagine 128 S2E 2MB VRAM ..$99

MATROX

Millennium II 4MB/8MB PCI ..$118/188
Millennium II 4MB (Retail Box) AGP ..$168
Millennium II 8MB (Retail Box) PCI ..$208
Millennium II 4MB/8MB AGP ..$128/190
Mystique 220 4MB SGRAM (Retail Box) ..$108

SCSI CONTROLLER CARDS

ADAPTEC

2842 SCSI VLB ..$178
2940 U SCSI PCI ..$149
2940 UW SCSI (Ultra Wide) PCI ..$169
3940 SCSI PCI ..$299
3940W SCSI PCI ..$469

TAPE BACK-UP DRIVES

IOMEGA

ZIP Drive
100MB External Parallel ..$158
100MB Insider IDE ..$98
100MB Cartridge ..$18
JAZ Drive
1.0GB SCSI Drive Insider ..$299
1.0GB SCSI Drive External ..$399
2.0GB SCSI Int. ..CALL
1.0GB Cartridge ..$128

HP/COLORADO

T3000 3GB Int ..$189
C1536 4mm Dat 2-4GB SCSI Int ..$638
C1599 4mm Dat 4-8GB SCSI Int ..$799
HP Mounting Kit to 5.25" ..$38

SCSI HARD DRIVES

IBM

DORS-32160 2.1GB Ultra SCSI ..$289
ACAS-32160 2.1GB Ultra Wide SCSI-3 ..$299
DCAS-34330 4.3GB Ultra SCSI-2 ..$389
DCAS-34330W 4.3GB Ultra Wide ..$399

QUANTUM

TM1280S Fireball 1.28GB Ultra SCSI-3 ..$258
TM32110S Fireball 2.1GB Ultra SCSI-3 ..$328
AL32275SW Atlas II 2.3GB Ultra Wide ..$459
AL34550S Atlas II 4.5GB Ultra SCSI-3 ..$599

NETWORKING SERVICES

- COMPLETE SETUP
- INSTALLATION
- TROUBLESHOOTING
- ON-SITE MAINTENANCE
- INTRANETS
- E-MAIL SERVERS

Networking Router, Hub & Switch

3Com® ASCEND

3COM

3C509 TPO ..$38
3C509 Combo ..$68
3C900 PCI TPO ..$68
3C900 PCI Combo ..$85
3C905 TX PCI 10/100 ..$68
3C16700 TPO 8 Port Office Connect Hub ..$145
3C16701 TPC 8 Port Office Connect Hub ..$185
3C16710 TPM 8 Port Office w/Management ..$448
3C16901 Linkswitch 1000 12 Port ..$2449
3C166671 SuperStack 24 Port ..$839

INTEL

EtherExpress Pro 10 Combo ..$98
EtherExpress Pro 100 PCI PILA8465B ..$55
12 Port EC100EKGP 100Mbps Hub ..$888

ASCEND

ISDN Pipeline 25 Single ..$589
ISDN Pipeline 25 NTI ..$619
ISDN Pipeline 25 NTI & Compression ..$789
ISDN Pipeline 50 Single ..$719
ISDN Pipeline 50 NTI ..$859

CISCO/BAY NETWORKS

Switch ..CALL
Hub ..CALL
Router ..CALL

WORLD-NET

16-Bit NE2000 Combo ..$20
PCI 10/20 Mbps Combo ..$29
PCMCIA Ethernet Card ..$79
5-Port Hub ..$49
9-Port Hub ..$69
100/10Mbps 2 Port Switch Hub ..$299
4-Port 100Mbps Fast Ethernet Hub ..$259
8-Port 100Mbps Fast Ethernet Hub ..$299
12-Port 100Mbps Fast Ethernet Hub ..$599
12-Port 100Mbps Fast Ethernet w/Fiber Module Hub ..$899

NOVELL

Netware 3.12 ..BEST PRICE
Netware 4.11 ..BEST PRICE

WORLD-NET MICROSYSTEMS INC.

TERMS AND CONDITIONS:

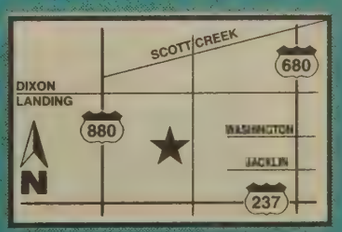
1. Lifetime Labor and One Year parts Warranty on all Computers.
2. Knowledgeable technical support engineers in service.
3. Prices and availability subject to change without notice.
4. Shipping, insurance and COD charges are extra and nonrefundable.
5. Return shipping must be insured, prepaid and bearing an RMA# on the shipping label.
6. Defective items replaced or repaired at our discretion.
7. Not responsible for typos.
8. All returns subject to 15% restocking fee and cover only World-Net Microsystems brand computers; excludes peripherals and software. No refunds after 30 days.
9. Superior reputation for service, quality and value.
10. Purchase orders are welcomed and subject to approval.
11. Price reflects cash discounts.

1503 North Milpitas Blvd., Milpitas, CA 95035

Tel: (408) 263-8088

Fax: (408) 263-4588

Corporate, Government, & Education POs Welcome



advertisersindex

Classified advertising section starts on page 191

9 NET AVENUE 2E
A&A TECHNOLOGY 99
AAA MEDIA 44
ACER FACTORY OUTLET STORE 18
ACME MICROSYSTEMS 218
ADVANTECH TECHNOLOGIES 18R
AIM COMPUTER 114
ALPHA TELECOM, INC. 104
AMERICAN MULTI SYSTEMS 28
AMT INTERNATIONAL 108, 109
APPRO INT'L 2J
ARESCOM 37
ARISE COMPUTER 71
AROMA COMPUTER 110, 111
ART MULTIMEDIA SYSTEMS 115
BAY AREA MICRO, INC. 87–89
BCSA COMPUTERS 47
BELMONT SYSTEMS 84, 85
BENITEK COMPUTER 83
BESQ SYSTEMS 12, 13
BEST INTERNET 162
BETA 90'S 16
BG COMPUTER 43
BOLD DATA TECHNOLOGY 18F, 18G
CALIFORNIA LS 17
CALLAN CORP. 143, 147
CCG / MACBYTE 14
CELAN TECHNOLOGY 171
CENTRAL COMPUTER 52, 56–65
CENTURY GRAPHICS 181
CHEM USA CORP. 2L
CHICOTEC 92
CKNS INTERNET 40
COMP EXPRESS 48
COMPU 11 4
COMPU D 154 180, 190
COMPUTER RENAISSANCE 24
COMPUTER SOURCE 219
COMPUTER SYSTEM OUTLET 34
COMPUTER XTRAS XPRES 82
COMPUTOWN 29
COMTEK COMPUTERS 93
CPU & MEMORY EXCHANGE CLUB 155
CYBER CAFES 36
CYBER TEK COMPUTER 140
CYBERVISION 2B
CYPRESS COMPUTER 33
CYRIX 2K
DECAVIEW 2F, 2G, 18M
DIAMOND LANE 147
DISK DRIVE DEPOT 3
DJ COMPUTERS 145
DOMINOCOMP 95
EDC SYSTEMS 82
EDIMAX COMPUTER CORP. 106, 120
ELECTRICITI INC. 18T
ENVISIONS SOLUTION TECHNOLOGY 25
EVERGREEN COMPUTERS INT. 152, 153
EVERNET EDUCATION 132
FARSIO COMPUTERS 34
FASTLINK NETWORK PRODUCTS 101
FINE TEC 41
FOR U COMPUTER 98
FORTUNE NET MICRO 112
FUTURE COMPUTING SOLUTIONS 91
GIGABYTES 46
GOLDEN VALLEY SYSTEMS 51
GOLDEN MICRO COMPUTERS 105
GRANITE DIGITAL 40
HALTED SPECIALTIES 75
HD SYSTEMS 35
HI-TECH USA 213–217
HIQUALITY SYSTEMS 18O
HITRON SYSTEMS 118, 119
HKG COMPUTERS 133
HOST PRO/NET LIMITED 18S
HYPERSURF INTERNET SERVICES 144
ICONIX 174
IDT WINCHIP C6 21
IIYAMA NORTH AMERICA INC. 107, C3
INFOGOLD 28
INPUT AUTOMATION 23
INREACH INTERNET 18A
IQ INFOQUEST 38, 39
ITS CD 24
INTERPRO 131
J&K TECHNOLOGY 19
JPS NET 18N
KINGSTAR COMPUTER 9, 126
K SQUARE COMPUTER 67
LAITRON 76–81
LANOP 181
LEGEND COMPUTER 11
LEX MICRO SYSTEMS 127
LINDEN MICRO TECH 122, 123
LJ SYSTEMS 18P, 18Q
MAC 135
MACBYTE 14
MACTICA 46
MARIN COMPUTER RESOURCE 18D, 18E
MARKET PRO 162
MEDIA ON 18B, 18C
MERIDIAN COMPUTER SYSTEM 31
MIC COMPUTER 5
MICRO SONIC COMPUTER 45
MICROSOFT 2C
MICROTIMES QUOTATION HOTLINE 52, 53
MICROTIMES SUPERSTOPS 184, 185
MICROTIMES WEBSITE 141
NCAL COMPUTER SOURCE 68, 69
NEBUCON INCORPORATED 2H
NETIS TECHNOLOGY 103
NETWORK ASSOCIATES 137
PALO ALTO MICRO 18
PC DOCTOR 49
PC TEN 113
PERFECT SOLUTION MULTIMEDIA 139
PIXEL USA 96, 97
PROVEN TECHNOLOGY 27, 174
QUICK DATA 157
RIX TECHNOLOGY 8
ROBERT AUSTIN CORP. 179
SCEPTRE 2A
SILICON VALLEY SQUARE 174
SILICONRAX 2D
SLIP.NET 7
SMART PAGE 168
STARLITE ELECTRONICS 22
STORAGE SYSTEMS ENG. 74
SUPERCOM C2, C4
SWEET MEMORY 15
SWEET SOFT SOFTWARE 54
T ZONE CORPORATE RESEARCH 21
THE PC DOCTOR 49
TRUECOMP AMERICA 72, 73
TSOFT 150
UMIRACLE MICROSYSTEMS 186–189
UNITED MICRO SYSTEMS 18L
UNIVERSAL COMPUTER PRODUCTS 169
USM DISTRIBUTORS 151
UTRON 18H–18K
VALUE NET INTERNET SERVICE 163
VARIANT MICROSYSTEMS 170
VERIO NORTHERN CA. 159
WEIRD STUFF WAREHOUSE 149
WESTECH MICRO 212
WORLD NET MICROSYSTEMS 210, 211
WWW.WEBSEL 151
YNN (MIBX) 146

YOUR SCANNER CENTER

HUGE SOFTWARE SELECTION!

BEST SOFTWARE PRICES!

MICROGATE

Your Downtown Connection

Notebooks • Desktops • Accessories • Repair • Upgrades

Lowest Prices in the City

DESKTOP CENTER

- Custom-Built Systems
- CPUs • Video Cards
- Hard Drives • Floppies
- Monitors • Fax Modems
- Video • Conferencing
- Scanners

NEW

900MHz Wireless

COMPAQ SAMSUNG HEWLETT PACKARD WESTERN DIGITAL CITIZEN Seagate USRobotics brother

PORTABLE CENTER

- Solutions
- Upgrades
- RAM
- PCMCIA Modems
- Portable Computers
- Palm Top Computers

SONY. FUJITSU USRobotics COMPAQ TOSHIBA HITACHI CITIZEN

SOFTWARE CENTER

Best Prices on Microsoft 98

SYMANTEC IBM Microsoft Adobe

SERVICE CENTER

- PC Repair
- Upgrade Specials
- Fast Turnaround Service
- Lowest Rates in the Bay Area
- Custom Configuration
- System Troubleshooting
- Lowest Corporate Rate

You Pay Less Here!

LOGITECH CENTER

Logitech MouseMan 96 $18

Logitech Trackman Marble $49

Wingman Extreme Digital $29

PageScan Color $79

All Logitech Liquidation/Refurbished Products Carry 90-Day Warranty

DIGITAL CENTER

Kodak OLYMPUS RICOH HITACHI SONY.

(415) 421-4283

690–A Market Street, San Francisco CA 94104

Open Mon.-Sat. 9-7 p.m., Sun. 9-6 p.m.

This index is provided as an additional service. Although we do our best to maintain accuracy, the publisher does not assume liability for errors or omissions.

HI-TECH USA

ALWAYS THE BEST

www.HiTech-USA.com

SAN FRANCISCO STORE OPEN ON SUNDAY 10AM TO 4PM

(408) 262-8688 .....Milpitas
(408) 732-8688 .....Sunnyvale
(650) 329-8688 .....Menlo Park
(650) 401-8688 .....San Mateo
(415) 753-6888 .....San Francisco
(510) 843-8688 .....Berkeley

FOR SPARC WORKSTATIONS OR LINUX /SOLARIS /SCO /UNIXWARE /NT SERVER
PLEASE CALL (888) 868-8778

CORPORATE, GOVERNMENT, AND EDUCATION ORDERS WELCOME. LEASING & FINANCING AVAILABLE

ALWAYS THE BEST • ALWAYS THE BEST • ALWAYS THE BEST

- PERFORMANCE – Including major brand name components: Intel! Cyrix! AMD! Western Digital! Maxtor! Quantum! Seagate! 3COM! Sony! NEC! Viewsonic! Adaptec! Matrox! ATI! Diamond! US Robotics! Iomega! to name a few.
- WARRANTY & SERVICE – 2 year parts / 2 year labor warranty on Hi-Tech USA PC Systems
- RESPONSIVENESS – Custom configurations, rapid delivery times, [illegible] support to meet your needs!
- PRICE– nobody beats our prices!
- MEANS ALWAYS THE BEST VALUES

HI-TECH DVD *Multimedia Systems*

PENTIUM II-400 **$2188**
BUSINESS LEASE $77/MONTH

- **128MB RAM** (256MB: Add $Call)
- **8.4GB EIDE**
- **32X CD-ROM** (2X DVD ROM: + $180)
- **US Robotics 56.6 Fax Modem (Internet Ready)**
- **Matrox Millenium II 8MB AGP or PCI**
- Sound Blaster AWE64 Value or Yamaha Sound (intel inside)
- Yamaha Speakers
- TEAC 1.44MB 3.5" Floppy Drive
- ATX Full Tower Case with Power Supply
- Keytronics Keyboard for Windows 95
- Microsoft Mouse with Pad
- Free Microsoft Windows 95
- **Free Microsoft Home Bundle**

Dual P2-400 (Super Micro DBE) w/1cpu $2188
Dual P2-350 (Super Micro DBE) w/1cpu ..1968
Dual P2-333 (Super Micro DBE) w/1cpu ..1868
Pentium II-400 (Intel Seattle BX) 2098
Pentium II-350 (Intel Seattle BX) 1878
Pentium II-333 (Intel Atlanta) ATX 1678
Pentium II-300 (Intel Atlanta) ATX 1568
Pentium II-266 (Intel Atlanta) ATX 1458
Pentium II-333 (Asus M/B) ATX.....1658
Pentium II-300 (Asus M/B) ATX.....1548
Pentium II-266 (Asus M/B) ATX.....1338

Upgrade With System

- Ilyama 9017E/8617E.....$538/458
- 30-Bit Color Flatbed Scanner.....88
- Windows NT 4.0 10 Client Server.....Best

HI-TECH SUPER *Multimedia Systems*

PENTIUM II-266 **$1168**
BUSINESS LEASE $41/MONTH

- **64MB RAM** (128MB: Add $Call)
- **6.4GB EIDE** (8.4GB: Add $80)
- **32X CD-ROM** (2X DVD ROM: + $180)
- **56.6 Internal Fax Modem w/Voice** (US Robotics 56.6: +$40) Internet Ready
- ATI Xpert **4MB AGP or PCI** (8MB: +$30)
- Sound Blaster AWE64 Value or Yamaha Sound (intel inside)
- Yamaha Speakers
- TEAC 1.44MB 3.5" Floppy Drive
- ATX Mid Tower Case with Power Supply
- Keytronics Keyboard for Windows 95
- Microsoft Mouse with Pad
- Free Microsoft Windows 95
- **Free Microsoft Home Bundle**

Pentium II-400 (Super Micro or Asus BX) $1778
Pentium II-350 (Super Micro or Asus BX) 1558
Pentium II-333 (Super Micro) ATX.....1388
Pentium II-300 (Super Micro) ATX.....1278
Pentium II-266 (Super Micro) ATX.....1168
Pentium II-333 (Intel 440LX) ATX.....1368
Pentium II-300 (Intel 440LX) ATX.....1258
Pentium II-266 (Intel 440LX) ATX.....1148
PP-180 (Intel Venus) ATX.....1018
MMX-P233/512K (Intel Anchorage)...1058
MMX-P200/512K (Intel Anchorage)...1028

Upgrade With System

- Sony 200GS / 100ES $588/278
- 30-Bit Color Flatbed Scanner.....88
- Windows NT 4.0 Workstation .....Best

HI-TECH PROFESSIONAL *Multimedia Systems*

MMX-P233 **$848**
BUSINESS LEASE AVAILABLE

- **64MB RAM** (128MB: Add $Call)
- **4.3GB EIDE** (6.4GB: +$50)
- **24X Max CD-ROM** (32X:+$10)
- **56.6 Internal Fax Modem w/voice** (US Robotics 56.6: +$40) Internet Ready
- **2MB SVGA Card**
- Sound Blaster 16 PNP or Yamaha Sound (Internet Ready!)
- 180W Speakers
- TEAC 1.44MB 3.5" Floppy Drive
- Mid Tower Case with Power Supply
- Keytronics Keyboard for Windows 95
- Microsoft Mouse with Pad
- Free Microsoft Windows 95
- **Free CD Deluxe Pack**

Pentium II-400 (Intel 440 BX) ATX.....$1538
Pentium II-350 (Intel 440 BX) ATX.....1318
Pentium II-333 (Intel 440 LX) ATX.....1168
Pentium II-300 (Intel 440 LX) ATX.....1058
Pentium II-266 (Intel 440 LX) ATX.....948
MMX-P233/512K (Intel Tucson) ATX.....848
MMX-P200/512K (Intel Tucson) ATX.....818
MMX-P233/512K (Asus SP97) 798
MMX-P200/512K (Asus SP97) 768
AMD K6-266/512K (Asus SP97).....778
AMD K6-233/512K (Intel Triton TX).....728

Upgrade With System

- 17"/15" SVGA Monitor $248/138
- 30-Bit Color Flatbed Scanner.....88
- Microsoft Office Professional.....188

HI-TECH HOME *Multimedia Systems*

MX-P200 **$568**
BUSINESS LEASE AVAILABLE

- **32MB RAM** (64MB/128MB: +$30/90)
- **2.0GB EIDE** (4.3GB/6.4GB: +$30/$70)
- **24X Max CD-ROM** (32X: Add $10)
- **33.6 Internal Fax Modem w/voice** (56.6 w/Voice: +$20) Internet Ready
- **1MB SVGA Card**
- PCI IDE with I/O
- Wavetable 3D Sound Card (Internet Ready!)
- 80W Speakers
- TEAC 1.44MB 3.5" Floppy Drive
- Mid Tower Case with Power Supply
- Keyboard for Windows 95
- Free Mouse with Pad
- Free Microsoft Windows 95
- **Free CD Deluxe Pack**

MMX-P233/512K (Super Micro).....$688
MMX-P200/512K (Super Micro).....658
MMX-P233/512K (Asus SP97) 678
MMX-P200/512K (Asus SP97) 648
MMX-P233/512K (Intel Triton TX).....658
MMX-P200/512K (Intel Triton TX).....628
AMD K6-266/512K (Asus SP97).....638
AMD K6-233/512K (Intel Triton TX).....608
AMD K6-200/512K (Intel Triton TX).....586
CYRIX MX-P233/512K (Intel Triton TX)..588
CYRIX MX-P200/512K (Intel Triton TX)..568

Upgrade With System

- 15"/14" SVGA Monitor $138/108
- 30-Bit Color Flatbed Scanner.....88
- Microsoft Office Professional.....188

Why do customers keep buying from HI-TECH USA? Simply because we deliver the best value.

HI-TECH USA SUPER SALE

SAN FRANCISCO STORE OPEN ON SUNDAY 10AM TO 4PM

*BASIC SYSTEM: MOTHERBOARD & CPU, 1.44MB FDD, CASE WITH POWER SUPPLY, AND 104-KEY KEYBOARD.

	MOTHER-BOARD	MOTHER-BOARD WITH CPU	BASIC SYSTEM W/32MB RAM	BASIC SYSTEM W/64MB RAM
DUAL PENTIUM II-400 (SUPER MICRO BX DBE) W/1CPU	$298	$1048	$1228	$1278
DUAL PENTIUM II-333 (ASUS P2L97DS) W/1CPU	348	768	918	968
PENTIUM II-400 (INTEL SEATTLE BX CHIPSET) ATX	198	958	1138	1188
PENTIUM II-350 (INTEL SEATTLE BX CHIPSET) ATX	198	748	928	978
PENTIUM II-400 (SUPER MICRO BX CHIPSET) ATX	168	898	1078	1128
PENTIUM II-350 (SUPER MICRO BX CHIPSET) ATX	168	688	868	918
PENTIUM II-333 (SUPER MICRO M/B) ATX	118	558	708	758
PENTIUM II-300 (SUPER MICRO M/B) ATX	118	458	608	658
PENTIUM II-266 (SUPER MICRO M/B) ATX	118	348	498	548
PENTIUM II-400 (ASUS P2B98 BX CHIPSET) ATX	178	918	1098	1148
PENTIUM II-350 (ASUS P2B98 BX CHIPSET) ATX	178	708	888	938
PENTIUM II-333 (ASUS M/B) (INTEL ATLANTA: +$20) ATX	134	578	728	778
PENTIUM II-300 (ASUS M/B) (INTEL ATLANTA: +$20) ATX	134	468	618	668
PENTIUM II-266 (ASUS M/B) (INTEL ATLANTA: +$20) ATX	134	358	508	558
PENTIUM II-400 (INTEL 440BX) (ABIT BX6: +$50) ATX	128	878	1058	1108
PENTIUM II-350 (INTEL 440BX) (ABIT BX6: +$50) ATX	128	868	848	898
PENTIUM II-330 (INTEL 440LX) (ABIT BX6: +$30) ATX	98	538	688	738
PENTIUM II-300 (INTEL 440LX) (ABIT BX6: +$30) ATX	98	428	578	628
PENTIUM II-266 (INTEL 440LX) (ABIT BX6: +$30) ATX	98	318	468	518
CELERON-266 (INTEL 440LX) ATX	98	258	408	458
DUAL PP-200C (INTEL PROVIDENCE M/B) ATX W/1CPU	198	468	618	668
PP-180C (INTEL VENUS M/B) (PP-200C: $160) ATX	84	198	348	398
MMX-P233/512K (INTEL ANCHORAGE M/B) ATX	108	238	388	438
MMX-P200/512K (INTEL ANCHORAGE M/B) ATX	108	208	358	408
MMX-P233/512K (INTEL TUCSON M/B) ATX	88	218	368	408
MMX-P200/512K (INTEL TUCSON M/B) ATX	88	188	338	378
MMX-P233/512K (SUPER MICRO OR ABIT TX5 M/B)	98	228	338	378
MMX-P200/512K (SUPER MICRO OR ABIT TX5 M/B)	98	198	308	348
MMX-P233/512K (ASUS SP 97) (ASUS VX97: +$20)	74	208	318	358
MMX-P200/512K (ASUS SP 97) (ASUS VX97: +$20)	74	178	288	328
MMX-P233/512K (TRITON TX) (ABIT PX5: +$20)	64	188	298	338
MMX-P200/512K (TRITON TX) (ABIT PX5: +$20)	64	158	268	308
AMD K6-P233/512K (TRITON TX)(K6-P266: +$80)	64	148	258	298
CYRIX MX-P233/512K (TRITON TX) (ABIT PX5: +$20)	64	138	248	288
CYRIX MX-P200/512K (TRITON TX) (ABIT PX5: +$20)	64	128	238	278

HI-TECH Extreme Notebooks

HOLDS UP TO 128MB OF RAM

- 32MB EDO RAM
- 2.1GB Hard Drive
- 16-Bit Stereo
- Modular 20X CD-ROM
- NIMH Battery
- 64-Bit PCI
- 2MB VRAM
- Infrared (FIR)
- Windows 95
- Carrying Case

Options: Port Replicator, Docking Station, Li-Ion Battery, Car adapter, Win NT, Linux 2.0, PCMCIA Fax/Modem or LAN Card.

UPGRADE

- To 3.0GB / 4.0GB HDD .....Add $50 / 180
- To Li-Ion Battery.....Add $70

NOTEBOOK	MMX 200	MMX 233
12.1" TFT	$1458	$1518

Business Lease Available

HI-TECH Super Notebooks

UP TO 72MB EDO RAM ON 12.1"
TO 128MB EDO RAM ON 13.3" AND 14.1" LCD

- 32MB EDO RAM
- 2.1GB Hard Drive
- 2MB/4MB EDO VRAM
- Built-in 20X CD-ROM
- Windows 95
- Infrared (FIR)
- 512K Cache
- 64-bit Graphic Engine
- 16-Bit Stereo
- 3D Sound / Wavetable
- NIMH Battery
- Carrying Case

Options: Port Replicator, Li-Ion Battery, Car adapter, Win NT, PCMCIA Fax/Modem or LAN Card

UPGRADE

- To 3.0GB / 4.0GB HDD .....Add $50 / 180
- To Li-Ion Battery.....Add $70

NOTEBOOK	MMX 200	MMX 233
14.1" TFT	$2018	$2058
13.3" TFT	$1908	$1938

Business Lease Available

HI-TECH VALUE MULTIMEDIA SYSTEM

- Cyrix 6X86 GX-PR 200 Processor
- 16MB System Memory
- 512K Pipelined Cache
- 1.2GB IDE Hard Drive
- 12X Max CD-ROM Drive
- 16 Bit 3D Sound
- 33.6K bps Fax/modem
- 1MB SVGA
- Mini Tower Case with Power Supply
- Keyboard for Windows 95
- Speakers and Mouse
- Microsoft Windows 95 Pre-installed
- 15"/14" Monitor ....+$145/115

Internet Ready!

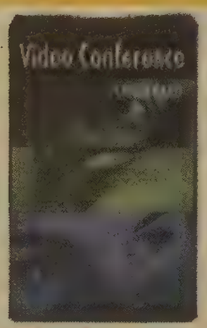
200MHZ $498

See Next Page for All of Our Upgrade Prices

DECAVIEW MONITORS

V260-2 15" 1280•1024 .28	$148
G380-2 17" 1280•1024 .25	248
G387 17" 1600•1200 .25	318
GA387 17" 1600•1200 .25	368
G400 19" 1600•1200 .26	478
PA630 21" 1800•1440 .28	738
DP150 15" 0.297x0.297	1148

PCMCIA CARDS



PCMCIA Videoconference	$238
PCMCIA 10-Base T/2 Card	58
Cardbus 100-Base-TX LANCard	88
PCMCIA Flash Card	$Call
PCMCIA ATA Flash Card	$Call

MONTHLY SPECIAL

2X DVD ROM
WITH DECODER CARD
$238

IMAGER 730 SCANNER
30-BIT COLOR FLATBED
$88

VIDEOCONFERENCE KIT
INCLUDES CAMERA AND CAPTURE CARD
$118

SALES HOURS: Mon-Fri: 9am-6pm, (8:30am-6pm Milpitas), Sat: 10am-4pm, Sun: 10am-4pm (SF Only)
SERVICE HOURS: Mon-Fri: 9am-5:30pm, Sat: 10am-3:30pm

DISCOVER VISA ATM CARD

HI-TECH USA ALWAYS

www.HiTech-USA.com

TERMS AND CONDITIONS

1. One year parts and labor warranty on systems.
2. Knowledgeable technical support engineers in service.
3. Prices and availability subject to change w/o notice.
4. Shipping, insurance and COD charges are extra and non-refundable. Prices reflect cash discounts.
5. Return shipping must be insured, prepaid and bearing an RMA# on the shipping label.
6. Defective items replaced or repaired at our discretion.
7. No responsible for typos.
8. All returns subject to 15% restocking fee and cover only HI-Tech USA brand computers, excludes peripherals, software and notebook computers. No refunds after 30 days.
9. Superior reputation for service, quality and value.
10. Purchase orders are welcomed and subject to approval.

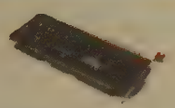
HI-TECH USA
ALWAYS THE BEST
www.HiTech-USA.com

(408) 262-8688 .....Milpitas
(408) 732-8688 .....Sunnyvale
(650) 329-8688 .....Menlo Park
(650) 401-8688.....San Mateo
(415) 753-6888.....San Francisco
(510) 843-8688 .....Berkeley

CASE W/POWER SUPPLY

230W / 250W / 300W Power Supply .....$17 / 19 / 32
235W / 250W ATX Power Supply .....36 / 39
Mini Tower Case w/200W Power Supply 19
Desktop AT Case w/200W Power Supply 29
Medium Tower Case w/230W Power Supply 32
Full Tower Case w/250W Power Supply 46
ATX Case w/Power Supply (Mid / Full) .....52 / 69
Full ATX Case w/300W Power Supply 96

CONTROLLERS



IDE 2FD/2HD with 2S/1P/1G.....$11

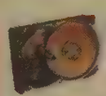
adaptec

2842 VLB (SCSI) 48
2940AU PCI (SCSI) 144
2940UW PCI (SCSI) 163

DATA TECHNOLOGY CORPORATION

DTC 2280E ISA with 16550 UART Chip.....$19
DTC3510 SCSI / ISA.....48

HARD / FLOPPY DRIVES



Quantum™ Maxtor Seagate MICROPOLIS COMPAQ WESTERN DIGITAL

IDE 1.2GB.....$109
IDE 2.0GB.....119
IDE 2.5GB.....126
IDE 4.3GB.....144
IDE 6.4GB.....188
IDE 8.4GB.....258
SCSI 1.0GB.....158
SCSI 2.0GB.....188
SCSI 4.0GB.....254
SCSI 6.4GB.....334
SCSI 9.0GB.....645
FUJITSU IDE 2.5GB / 3.2GB.....130 / 148
JTS IDE 2.0GB.....119
MAXTOR IDE 2.8GB / 3.2GB.....134 / 144
MAXTOR IDE 4.3GB / 6.4GB.....154 / 194
MAXTOR IDE 8.4GB.....260

QUANTUM
IDE 6.4GB.....188
SCSI 2.0GB / 4.3GB.....188 / 258
SCSI 6.4GB.....328
SCSI 9.1GB (SCSI).....648

SAMSUNG
IDE 2.0GB / 4.3GB.....119 / 144

SEAGATE
IDE 3.2GB.....144

WESTERN DIGITAL
IDE 2.0GB / 2.5GB.....128 / 136
IDE 3.2GB.....145
IDE 4.3GB / 6.4GB.....158 / 208

FLOPPY DRIVES
Mitsumi 1.44 Floppy Drive.....17
Teac 1.44 Floppy Drive.....19

MOUSE

3-Button Mouse Microsoft Compatible.....$5
Net Mouse PS2 or Serial.....9

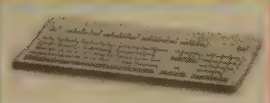
LOGITECH

First Mouse (Serial-2 Button).....9
Mouseman Serial / PS2 (OEM).....14 / 15

Microsoft

2 Button Serial / PS2 (w/System).....$20 / 21
Intelli Serial / PS2 (w/System).....22

KEYBOARDS



104-Key Keyboard for Windows 95.....$9

FOCUS
FK2001 / 6200W / 7200W.....22 / 17 / 23
FK8200 / 9200.....34 / 38
Keytronics 104-Key for Windows 95.....14
Lite-on SK-6000 / SK-6000T.....34 / 49
Mitsumi 104-Key for Windows 95.....10
Maxiswitch Nova for Windows 95.....15
Maxiswitch Nova PS/2.....15
Microsoft Natural Key (w/System).....33

MEMORY & CPU

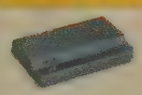
256K / 512K Cache Memory.....3 / 8

SIMM
4MB (4x3) (30 Pin).....8
4MB (4x9) (30 Pin).....13
4MB (1x32) (72-Pin).....8
8MB (2x32) (72-Pin).....11
16MB (4x32) (72-Pin).....19
32MB (8x32) 72-Pin).....38
4MB (1x32) (EDO).....7
8MB (2x32) (EDO).....10
16MB (4x32) (EDO).....18
32MB (8x32) (EDO).....34
4MB (1x36) (Parity).....12
8MB (2x36) (Parity).....23
16MB (4x36) (Parity).....29
32MB (8x36) (Parity).....56

DIMM
16MB (2x64) (66 MHz).....24
32MB (4x64) (66 MHz).....35
64MB (8x64) (66 MHz).....75
128MB (16x64) (66 MHz).....158
32MB (4x64) (100 MHz).....65
64MB (8x64) (100 MHz).....98
128MB (16x64) (100 MHz).....188

CPU
AMD 486DX4-100.....34
AMD K6-166 / K6-200.....58 / 68
AMD K6-233 / K6-266.....78 / 108
Cyrix MX-P166.....48
Cyrix MX-P200.....58
Cyrix MX-P233.....68
Cyrix MX-P266.....104
Intel P5-166.....68
Intel Pentium Pro-180 / with Fan.....118 / 128
Intel MMX-200 / 233.....104 / 134
Intel Pentium II-266.....214
Intel Pentium II-300 / 333.....324 / 428
Intel Pentium II-350 / 400.....538 / 748

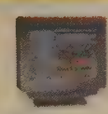
MODEMS & FAXES



Fax Modem 33.6 Int (Windows Only).....$24
Fax Modem 33.6 Int.....27
Fax Modem 33.6 with Voice Int.....28
Fax Modem 33.6 Ext.....55
Fax Modem 56.6 with Voice Int (Windows Only).....40
Fax Modem 56.6 with Voice Int.....50
PCMCIA Fax Modem 33.6.....53
PCMCIA Fax Modem 56.6.....78
SUPRA 56.6 Fax Modem Int.....60

US ROBOTICS
Sportster 33.6 Data Fax Modem Int (Retail).....68
Sportster 33.6 Data Fax modem w/Voice Int (Bulk).....82
Sportster 33.6 Data Fax Modem w/Voice Int (Retail).....88
Sportster 56.6 Internal w/o Voice (Bulk).....80
Sportster 56.6 Internal w/Voice (Bulk).....82
Sportster 56.6 Internal w/Voice (Retail).....134
Sportster 56.6 External w/Voice (Retail).....168

MONITORS*



14" SVGA 1024*768 .28 NI.....$109
15" SVGA 1024*768 .28.....139
17" SVGA 1280*1024 .28.....249

CTX

14" Super VGA 1024*768 .28 NI.....$148
15" Super VGA 1024*768 .28.....168
17" Super VGA 1280*1024 .28 (VL700).....308
17" Super VGA 1600*1280 .26 (VL710).....348

Decaview

V260-2 15" 1280*1024 .28.....$148
G380-2 17" 1280*1024 .25.....248
G387 17" 1600*1200 .25.....318
GA387 17" 1600*1200 .25.....368
G400 19" 1600*1200 .26.....478
PA630 21" 1800*1440 .28.....738
DP150 15" 0.297x0.297.....1148

IIYama (IDEK)

MF-8617E 17" 1600*1200 .26.....458
MF-9017E 17" 1600*1200 .26.....538

mpression

3+ 14" 1024*768 .28 NI.....$134
5+ 15" 1280*1024 .28 NI.....168
7+ 17" 1280*1024 .28 NI.....298
17" Vienno Pro.....474

MAG INNOVISION

DJ530 15" 1280*1024 .28.....$208
500T 15" 1280*1024 .25.....248
DX15T 15" .25 Trinitron OSD Win 95.....278
DJ700 17" .26 1280*1024.....378
DX700T 17" .25 Trinitron OSD Win 95.....388

NANAO®

FX-B5 15" .28 / FX-C5 17" .28.....408 / 618
FX-C6 17" .26 / TX-C7 17" .25.....698 / 748
TX-D7S 20" .25 / FX-E7 21" .28.....1468 / 1468

NEC

A500 / E500 / M500.....257 / 298 / 348
A700 / E700 / M700.....458 / 558 / 558
E1100 21" .28.....1068

SONY

100ES / 100GS 15".....$278 / 328
200ES / 200GS 17".....518 / 588
200PS 17" / 400PS 19".....728 / 918
20SEZT 20" / 500PS 21".....1128 / 1298

ViewSonic®

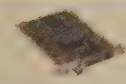
E641 14" 1024*768 .28.....$154
E655 15" 1024*768 .28.....218
P655 15" 1280*1024 .28.....254
15GA 15" 1280*1024 .27 w/Speakers.....288
EA771 17" 1280*1024 .28 w/Speakers.....428
G771 17" 1280*1024 .28.....368
G773 17" 1280*1024 .25.....428
PT771 17" 1600*1200 .25.....578
PT775 17" 1600*1200 .25.....616
G790 19" 1600*1200 .26.....678
G810 21" 1600*1200 .25.....918
P810 21" 1600*1200.....1048
PT 813 21" 1600*1200 SonicTron.....1236
P815 21" 1800*1440 .25.....1156
29GA 29" .75.....1948
VPA138.....818
VPA150.....13108

* Monitor Viewable size may be smaller than advertised size

MULTIMEDIA

2X DVD Rom with Decoder Card.....$246
TV Card.....68
Videoconference Kit – Camera and Capture Card.....118
16-Bit Sound Card.....12
Altec Lansing Speakers ACS 43 / ACS 51.....38 / 54
Altec Lansing Speakers ACS 48 / ACS 500.....128 / 238
CD Writer Yamaha CDR-4260TIPC Rewritable SCSI Int..538
CD Writer Yamaha CDR-4001TIIC Rewritable IDE Int.....538
Creative DVD ROM with Decoder Card.....268
Creative Sound Blaster 16 SCSI II.....38
Creative Sound Blaster 16 PNP.....28
Creative Sound Blaster 32 PNP.....54
Creative Sound Blaster AWE 64 Value (Bulk).....58
Creative Sound Blaster AWE 64 Value (Retail).....82
Creative Sound Blaster AWE 64 Gold (Bulk).....116
Creative Sound Blaster AWE 64 Gold (Retail).....158
CD-ROM 6X IDE / 8X IDE.....22 / 28
CD-ROM 12X IDE / 16X IDE.....38 / 44
CD-ROM 20X IDE / 24X IDE.....45 / 47
CD-ROM 32X IDE.....54
Mitsumi 2x8 CDR IDE.....254
Mitsumi 6X 6-Speed / 16X 16-Speed IDE.....28 / 50
Mitsumi 24X 24-Speed IDE.....52
Mitsumi 32X 32-Speed IDE.....58
NEC 16X / 24X / 32X SCSI.....69 / 76 /88
Pansonic 8X SCSI.....48
TEAC 24X 24-Speed IDE.....56
TEAC 32X 32-Speed IDE.....66
TEAC 16X 16-Speed SCSI.....70
Toshiba 24X 24-Speed IDE.....57
Toshiba 32X 32-Speed IDE.....67
Toshiba 15X SCSI.....65
Toshiba 32X 32-Speed SCSI.....92
Speakers 80W / 180W / 300W.....10 / 22 / 36
Yamaha Speakers M7 / M15.....34 / 58
Yamaha Speakers M25 / M35 / M45.....84 / 118 / 138

NETWORK



16 BIT Ethernet Card ISA (Combo).....$12
32 BIT PCI Ethernet Card (Combo).....13
PCMCIA Ethernet Card (Combo).....54

3Com

3C509 ELINK III TP.....$37
3C509 ELINK III Combo.....52
3C900 PCI TP.....58
3C900 PCI Combo.....73
3C905 TX PCI 10 / 100.....57

Hubs and Repeaters

Ethernet Hub 5-Port / 9-Port.....$34 / 42
Ethernet Hub 17-Port.....78

Intel

EtherExpress Pro 10 / 100 TX PCI.....$48

PRINTER

NEC 150C Color Deskjet.....$128
NEC 750C Color Deskjet.....178
NEC 660i Laser Printer.....248
NEC 860 Laser Printer.....378
NEC 1260 Laser Printer SuperScript.....648

SCANNER

Imager 730 Flatbed 30-Bit Color 9600 300x600dpi.....$88
Umax Astra 610P / 600S.....128 / 148
Umax Astra 1220P.....198
Umax Astra 1200S Photo Deluxe Win.....234

SOFTWARE

Microsoft Super Home Bundle (w/system).....$75
Microsoft Office Professional OEM CD Version (w/System)..188
Microsoft Windows NT 4.0 Server
5 Clients (with/System1/10 Clients (with/System).....BEST
Microsoft Windows NT 4.0 Workstation (with Sys).....BEST

TAPE BACKUP

COLORADO MEMORY SYSTEMS

T-3000T 3.2GB Int. w/tape.....151
T-4000T 8.0GB SCSI Int w/tape.....333
Tape for 800MB.....10

IOMEGA
Jaz SCSI Drive 1.0GB Insider.....268
Jaz SCSI Drive 1.0GB External.....368
Jaz SCSI Drive Cartridge.....93
Zip Drive 100MB IDE.....82
Zip Drive 100MB External Parallel.....135
Zip Drive 100MB External SCSI.....98
Zip Drive 100MB Cartridge.....15
NEC Zip Drive 100MB IDE.....76

VGA CARDS

SVGA ISA w/1MB.....28
Cirrus Logic PCI w/1MB.....19
S3-765 1MB EDO.....18
S3 Virge 3D w/2MB EDO.....33
S3 Virge w/4MB GDO.....40
Trident PCI w/1MB.....20
Trident PCI w/2MB.....27

ATi TECHNOLOGIES

3D Xpression 2MB EDO.....41
3D Xpression+ w/o TV 2MB.....44
3D Xpression+ w/ TV 2MB.....59
All In Wonder 4MB / 8MB PCI.....120 / 228
All In Wonder 8MB AGP.....248
ProTurbo w/TV 4MB SGRAM.....70
ProTurbo w/TV 8MB SGRAM.....93
TV Tuner.....78
Xpert@Work 4MB AGP.....69
Xpert@Work 4MB PCI.....69
Xpert@Work 8MB AGP.....98
Xpert@Work 8MB PCI.....94
Xpert@Play 4MB AGP.....89
Xpert@Play 4MB PCI.....86
Xpert@Play 8MB AGP.....113
Xpert@Play 8MB PCI.....110

DIAMOND

2500 1MB.....$18
Edge 3D 2MB DRAM.....26
Edge 3D 2MB VRAM.....34
Hercules 3D 2MB EDO.....28
Hercules 128/Video 2MB EDO.....38
Stealth 3D 2000 Pro PCI 2MB.....45
Stealth 3D 2000 Pro PCI 4MB.....56
Stealth 3D 3000 PCI 4MB (VRAM).....130
Stealth 3D 4000 4MB AGP.....54
Fire GL1000 Pro 4MB AGP.....132
Fire GL1000 Pro 4MB PCI.....112
Fire GL1000 Pro 8MB AGP.....162
Fire GL1000 Pro 8MB PCI.....142
Monster 3D 4MB.....98
Viper V330 4MB AGP.....82
Viper V330 4MB PCI.....82

MATROX

Millennium II 4MB AGP (Bulk).....114
Millennium II 4MB PCI (Bulk).....114
Millennium II 4MB (Retail).....138
Millennium II 8MB AGP (Bulk).....162
Millennium II 8MB PCI (Bulk).....162
Millennium II 8MB (Retail).....194
Mystique 220 2MB (Bulk).....58
Mystique 220 4MB (Bulk).....63
Productiva G100 4MB AGP.....73
Productiva G100 8MB AGP.....83
Rainbow Runner (Mystique).....128
Rainbow Runner (Millennium).....198

Number 9

Revolution 4MB SGRAM AGP (Bulk).....104
Revolution 8MB SGRAM AGP (Bulk).....158
Revolution 8MG SGRAM AGP (Retail).....174

Intel, Intel Inside and Pentium are registered trademarks of the Intel Corporation. Microsoft is a registered trademark and Windows and the Windows logo are trademarks of Microsoft Corporation. All other trademarks, logos are property of their respective companies.

CORPORATE ORDER (888) 868-8778 FAX (408) 262-8772 SERVICE (408) 956-8285
QUOTE (408) 946-6886 EMAIL – HTUSA@SLIP.NET WWW.HITECH-USA.COM

ONE-STOP SOLUTION OF NETWORKING

UNIX/LINUX/NT SYSTEMS ON INTEL PLATFORM (Solaris/SCO/Linux/NT)

Corporate, Governments & Education PO's Welcome

HI-TECH PS1002

POWER SERVER

$3,538

BUSINESS LEASE $124/MONTH

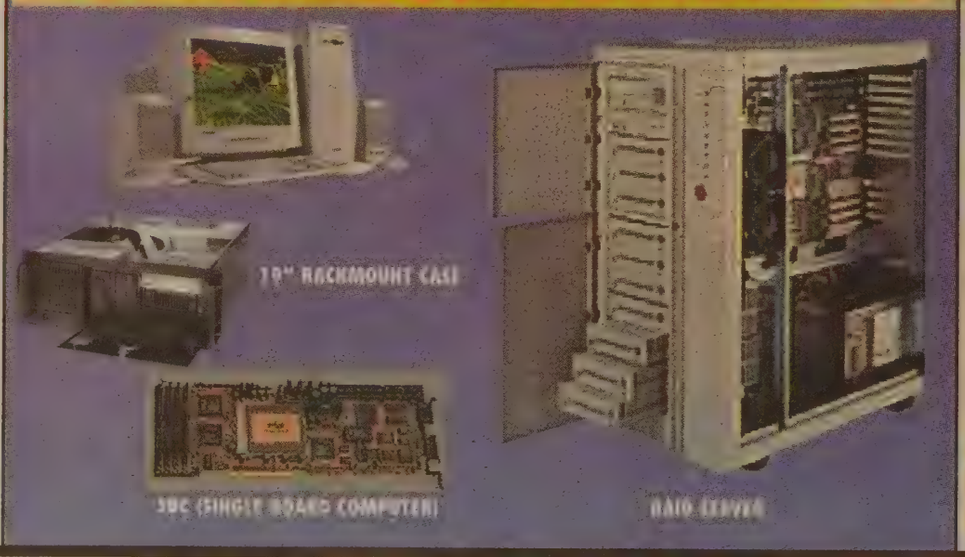
- Dual Pentium II/400MHz Motherboard W/Intel 440 BX chipset AGP
- Dual Pentium II/400MHz CPU
- 128MB DIMM SDRAM
- Ultra Wide SCSI Controller (80 MB/S)
- Teac 1.44MB FDD
- 10/100MBPS PCI Ethernet Card
- 9GB ULTRA Wide SCSI HD
- 32X SCSI Int. CD-Rom
- ATI Xpert 4MB AGP or PCI
- ATX Full Tower W/300W P/S
- Logitech PS/2 Mouse
- Keytronic Enhanced Keyboard

OPTIONS:

350MHZ	$3038	$107/Mo.
333MHZ	$2798	$98/Mo.
300MHZ	$2548	$90/Mo.
266MHZ	$2298	$81/Mo.

Ask for 19" Rackmount Case

CUSTOM CONFIGURATION



HI-TECH RS2002

RAID SERVER

$5,988

BUSINESS LEASE $209/MONTH

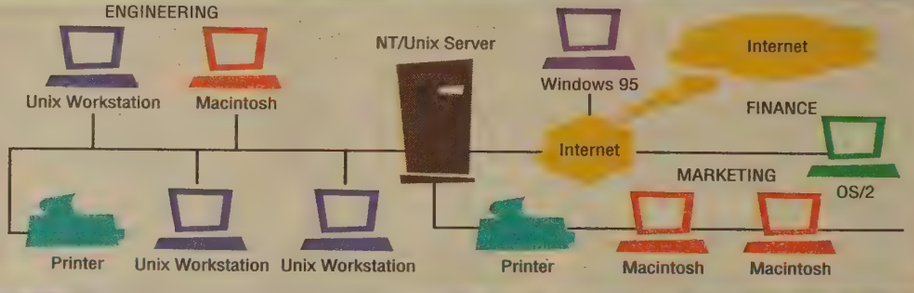
- Dual Pentium II/400MHz Motherboard W/Intel BX chipset AGP, w/RAID Support
- Dual Pentium II/400MHz CPU
- 256MB DIMM SDRAM
- Adaptec AAA-133RAID 3 Channel (Level 0 - Level 5)
- Teac 1.44MB FDD
- 10/100MBPS PCI Ethernet Card
- 20GB (5x4.3GB) ULTRA Wide SCSI HD
- 32X SCSI Int. CD-Rom
- ATI Xpert 8MB AGP or PCI
- ATX Server Tower W/Dual 300W Hot Swapped Power Supply
- Logitech PS/2 Mouse
- Keytronic Enhanced Keyboard

OPTIONS:

350MHZ	$5488	$193/Mo.
333MHZ	$5248	$184/Mo.
300MHZ	$4978	$175/Mo.

SOLARIS COMPATIBLE

SCO



Microsoft Windows NT Server

HI-TECH LUNS201 WORKSTATION

$748 BUSINESS LEASE $27/MONTH

- Intel Triton M/B w/512K cache
- Pentium 233 MHz, MMX CPU
- 64MB EDO RAM, 60ns
- Teac 1.44MB FDD
- 10/100MBPS PCI Ethernet Card
- Matrox Millenium II w/4MB
- 4.3GB Ultra EIDE Internal HDD
- 32X EIDE Internal CD-Rom
- Mid Tower Case w/Power Supply
- Keytronics Enhanced Keyboard
- Logitech PS/2 Mouse (3 buttons)

OPTIONS:

Solaris Desktop V2.6	Add $315
SCO Desktop V5.0.4	Add $615
MS NT Workstation / WIN 95	Add $168 / 95

- Provides local and remote users with fast, simultaneous access to all network resources
- Offers a wide variety of connectivity options
- Provides outstanding management and administration capabilities
- Use Server of NT/Solaris/SCO/Linux to make a flexibility Network Access Services (NAS)
- Provides relative software solution for variety of networking packages.

NETWORKING SOLUTION 1

$7,158

BUSINESS LEASE $251/MONTH

INCLUDING

- 1x Hi-Tech PS1002 Server
- 4x Hi-Tech LUNS201 Workstations
- APC UPS 1400 w/950W, 6 outlet
- 5 Port 10Base-T HUB

OPTIONS:

MS Small Business Server w/5 User	Add $1295
Linux OS	Add $50 each
NT Server w/10 User	Add $780
Solaris Server 2.6 w/5 User	Add $550
SCO OpenServer Enterprise w/5 User	Add $1015
4x MS Office Pro 97	Add 4x $188

Ask for Novell NetWare

NETWORKING SOLUTION 2

$13,378

BUSINESS LEASE $469/MONTH

INCLUDING

- 1x Hi-Tech RS2002 Server
- 9x Hi-Tech LUNS201 Workstations
- APC UPS 1400 w/950W, 6 outlet
- 12 Port 10Base-T HUB

OPTIONS:

MS Small Business Server w/25 User	Add $2295
Linux OS	Add $50 each
NT Server w/10 User	Add $780
Solaris Server 2.6 w/Unlimited User	Add $1235
SCO OpenServer Enterprise w/16 User	Add $1995

Ask for Novell NetWare

• 5 YEARS LABOR AND 1 YEAR PARTS WARRANTY • LIFETIME FREE TECHNICAL SUPPORT • 24 HOUR RESPONSE FOR TECHNICAL SUPPORT

CORPORATE SALES & SERVICE HOURS: MONDAY - FRIDAY, 8AM TO 6PM PST

DISCOVER VISA ATM CARD

HITECH USA ALWAYS TH

www.HiTech-USA.com

TERMS AND CONDITIONS

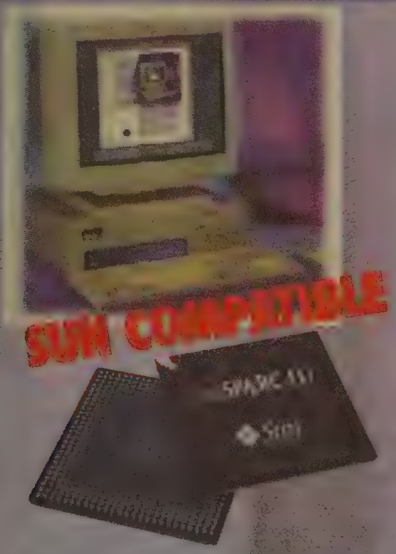
1. One year parts and labor warranty on systems.
2. Knowledgeable technical support engineers in service.
3. Prices and availability subject to change w/o notice.
4. Shipping, insurance and COD charges are extra and non-refundable. Prices reflect cash discounts.
5. Return shipping must be insured, prepaid and bearing an RMA# on the shipping label.
6. Defective items replaced or repaired at our discretion.
7. No responsible for typos.
8. All returns subject to 15% restocking fee and cover only Hi-Tech USA brand computers, excludes peripherals, software and notebook computers. No refunds after 30 days.
9. Superior reputation for service, quality and value.
10. Purchase orders are welcomed and subject to approval.

Solaris is a trademark of Sun Microsystems, Inc. SPARC is a trademark of SPARC International. All other trademarks are property of their respective owners.

HI-TECH USA
ALWAYS THE BEST

(888) 868-8778 CORP. ORDER
(408) 946-6886 QUOTE
(408) 262-8772 FAX WWW.HITECH-USA.COM

SPARCengine Ultra AXi PCI Systems



SPARC SOLARIS TECHNOLOGY WITH STANDARD PC COMPONENTS AT BEST VALUE

ASKING FOR THE PRICE OF MOTHERBOARD/CPU/MEMORY AND MORE

UltraSPARC-IIi is a highly-integrated, PCI-based, 64-bit SPARC V9 superscalar processor and is available as both a single chip and module. At 300 MHz with 512Kbytes external cache, the **UltraSPARC-IIi** processor-based module provides a SPECint95 of 12.1 and SPECfp95 of 12.9. The **UltraSPARC-IIi** processor supports 4/6 PCI devices at up to 66 MHz and an optional Advanced PCI Bridge is available to increase connectivity and support demand for PCI I/O bandwidth for up to eight devices at 33 MHz. The **UltraSPARC-IIi** processor provides optimum I/O, memory and compute performance for typical uniprocessor systems. This means a balanced price/performance solution that delivers the power and features needed by high-end applications, such as optimized power utilization, supporting manufacturability, and ease-of-design.

HI-TECH WIN500AX
AXI PCI SERVER

$3,998

BUSINESS LEASE $139/MONTH

- Sun SPARCengine Ultra AXi w/ 270MHz
- 64MB EDO DIMM
- 1.44 MB Floppy Disk Drive
- Symbios Ultra wide SCSI Controller
- 4.3GB Ultra Wide SCSI Int. Hard Drive
- 24X SCSI Internal CD-Rom Drive
- ATI PCI Video Card w/4MB
- Built-in 10/100 MHz Ethernet
- 2 Serial, 1 Parallel Port
- PS/2 Mouse
- Type 5 Enhanced Keyboard
- Solaris 2.6 Server (pre-loaded)

ASK FOR THE RACKMOUNT CASE

HI-TECH WIN1000AX
AXI PCI SERVER

$4,218

BUSINESS LEASE $148/MONTH

- Sun SPARCengine Ultra AXi w/ 300MHz
- 64MB EDO DIMM
- 1.44 MB Floppy Disk Drive
- Symbios Ultra wide SCSI Controller
- 4.3GB Ultra Wide SCSI Int. Hard Drive
- 24X SCSI Internal CD-Rom Drive
- ATI PCI Video Card w/4MB
- Built-in 10/100 MHz Ethernet
- 2 Serial, 1 Parallel Port
- PS/2 Mouse
- Type 5 Enhanced Keyboard
- Solaris 2.6 Server (pre-loaded)

ASK FOR THE RACKMOUNT CASE

HI-TECH UX20300
ULTRA SPARC II SERVER

$14,298

BUSINESS LEASE $501/MONTH

- System Mainboard w/Case & PS
- Ultra SPARC II 300 MHz CPU w/2MB Cache
- 256MB RAM
- GX3 1MB VRAM
- 4.3GB Ultra Wide SCSI Int. Hard Drive
- 1.44 MB Floppy Disk Drive
- Fast SCSI Internal CD-Rom
- Type 5 Enhanced Keyboard
- Mechanical Mouse
- Built-in 10Base-T Ethernet
- Solaris 2.6 Server (pre-loaded)

OPTIONS

UltraSPARC II w/ 2x300 MHz.....$19,598
UltraSPARC I w/ 167 MHz.....$7,988

HI-TECH RMS20300
RACKMOUNT SERVER

$15,688

BUSINESS LEASE $550/MONTH

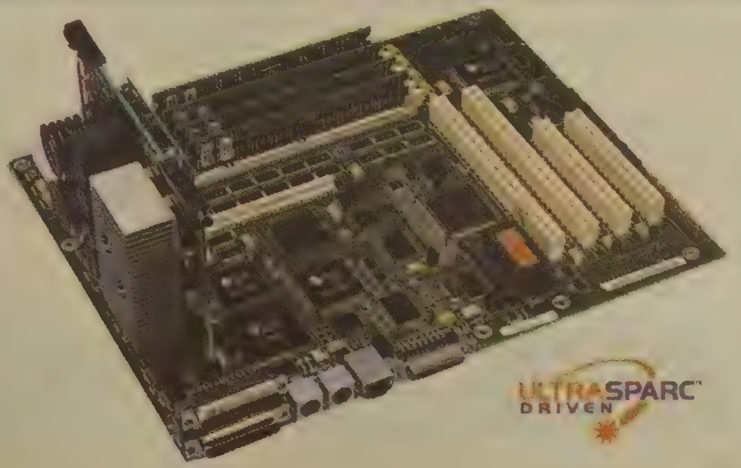
- Sun Ultra SPARC II / 300 MHZ
- Ultra SPARC II 300 MHz CPU w/1MB Cache
- 256MB RAM
- GX3 1MB VRAM
- 4.3GB Ultra Wide SCSI Int. Hard Drive
- 1.44 MB Floppy Disk Drive
- Fast SCSI Internal CD-Rom
- Type 5 Enhanced Keyboard
- Mechanical Mouse
- Built-in 10Base-T Ethernet
- 19" Rackmount Chassis
- Solaris 2.6 Server (pre-loaded)

ASK FOR THE OTHER MODELS

- 5 YEARS LABOR AND 1 YEAR PARTS WARRANTY
- LIFETIME FREE TECHNICAL SUPPORT
- 24 HOUR RESPONSE FOR TECHNICAL SUPPORT

CORPORATE SALES & SERVICE HOURS:
MONDAY - FRIDAY, 8AM TO 6PM PST

CORPORATE, GOVERNMENT, AND EDUCATION ORDERS WELCOME. LEASING & FINANCING AVAILABLE.



SOLARIS COMPATIBLE | SPARC Compliant SCD | SPARC International Member

RESELLERS WELCOME

BEST PRICE, BEST QUALITY, BEST SERVICE GUARANTEED!

Lifetime Labor Warranty on All Computers!

SUPER MICRO P6SLA MOTHERBOARD

Intel Pentium® II Processor with fan
512K PB Cache
32MB SDRAM
Diamond 3D 4000 4MB Video, AGP
Teac 1.44MB FDD
Maxtor 2.1GB U-DMA HDD
32X Toshiba CD ROM
Creative ensoniq PCI sound
56K Zoltrix Fax/Modem
60W speakers
Ps/2 keyboard & mouse
ATX mid Tower w/235W power supply

Pentium® II-233MHz.....$888
Pentium® II-266MHz.....$938
Pentium® II-300MHz.....$1060
Pentium® II-333MHz.....$1172

AGP MULTIMEDIA 98

VIA 300 Motherboard with AGP
Diamond AGP 2MB Graphic card
Mitsumi 24x CD ROM
Intel Pentium, AMD K6 or Cyrix Processor
Cooling fan for CPU
32MB SDRAM
2.1GB Ultra DMA33 Hard Drive
1.44MB Teac Floppy Drive
Deluxe 833 Mid Tower
Mitsumi 104 Keyboard
ESS 3D Sound Card
60w Amplified Speaker
Free Mouse & Pad
Free CD games

MMX200/233.....$586/$610
Cyrix MX-200 .....$556
Cyrix MX-233.....$569
AMD K6 233/266 $595/$649

ACME BX-400 BASIC UPGRADE

SuperMicro P6SBA Motherboard
440BX chipset, 100MHz Bus
Intel Pentium® II Processor
CPU cooling fan
AMI BIOS, 512K Cache
Teac 1.44MB FDD
EIDE+Fast I/O (16550 UART)
ATX Deluxe mid Tower, 235W UL power

Pentium® II 233MHz.....$499
Pentium® II 266MHz $555
Pentium® II 300MHz $669
Pentium® II 333MHz.....$798
Pentium® II 350MHz.....$928

OFFICE AGP CAD EXPERT

Tyan S1846S P-II 400 MotherBoard
440BX chip, 512K P-Cache
ATI Xpert@Work 4MB AGP Video
Intel Pentium II Processor with fan
PC100 32MB SDRAM DIMM
4.3GB Ultra DMA33 Hard Drive 9ms
Teac 1.44MB FDD
32x CD ROM
ATX Deluxe Mid tower case 235W
Keytronic PS/2 104 Keyboard
Microsoft PS/2 mouse

Pentium® II 233 MMX.....$858
Pentium® II 266 MMX.....$908
Pentium® II 300 MMX....$1028
Pentium® II 350 MMX....$1248

P-II 400 SCSI NETWORK SERVER

Super Micro P6SBS 440BX AGP Motherboard
Intel Pentium® II CPU 512K with fan
24X CD ROM Mitsumi
Teac 1.44MB FDD
PC100 64MB SDRAM
Diamond Stealth 3D Pro 2MB
Adaptec Dual channel UW SCSI
4.5GB Ultra Wide SCSI Hard disk, 7ms
Intel 10/100M Ethernet Pro
Enhanced 104 Keyboard
ATX Full Tower, 300W UL power
Total 3 cooling fans
Logitec MouseMen 3 button

Pentium® II 300, 512K ..$1499
Pentium® II 333, 512K ..$1628
Pentium® II 350, 512K ..$1749
Pentium® II 400, 512K ..$1968

Market News • SPECIALS • Market News • SPECIALS • Market News • SPECIALS

1. Find Out About Our Weekly Specials Save Big $$$$ www.acmemicro.com
2. Pentium MMX Motherboard with AGP slot from Tyan **$97**
3. Super Micro P6SBA Pentium® II 400 motherboards **$138**
4. Intel Approved PC100 64/128MB SDRAM, Samsung original DIMM **$118/$239**
5. ATI Xpert@Work 4MB VGA (PCI or AGP) **$70**

Brand Name Components at GREAT PRICES!

MOTHERBOARDS

ABIT
Abit AX5 TX 512k, MMX, K6-233.....$89
Abit TX5 TX 512K, Pentium MMX, k6.....$89
Abit BX6 Pentium II 400, ATX.....$149

ASUS
Asus TXP4, AT, Pentium 512K.....$98
Asus TXP4X, ATX, Pentium 512K.....$102
Asus P2B ATX, 440BX,AGP, P-II 400.....$166
Asus P2B-S ATX, 440LX, AGP, UW SCSI.....$329

INTEL
Intel Seattle SE440BXIA (P-II 400) + AUDIO (boxed).....$182
N440BX, Dual Pentium II 400,SCSI,LAN,AUDIO.....$598
PR440FX Dual P-Pro.....$499
Super Micro (Intel Chipset)
P6DBS Dual Pentium II 400 +Dual UW SCSI.....$365
P6SBA ATX, AGP, P-II 400, DIMM.....$138
P6SBS ATX Pentium II 400 with Dual UW SCSI.....$269
P5MMS98 MMX,K6-233, 512K, 430TX.....$99
P5MMA98 ATX, MMX,K6-233, 512K, 430TX.....$109

TYAN
Tsunami S1846S Pentium II 400.....$148
Tiger 100 S1832DL ATX, BX Dual Pentium II 400.....$257
Thunder 100 S1836DLUAN P-II 400 dual.....$589
Trinity S1592S Pentium MMX with AGP.....$97

VIDEO DISPLAY

ATI Graphic
ATI All-In-Wonder Pro 4MB, TV tuner, PCI/AGP.....$198/213
XPERT@WORK 4MB PCI/AGP.....$70
Xpert@play 4MB PCI/AGP.....$89

DIAMOND
Stealth 3D 4000 4M SGRAM AGP.....$59
3D 2000 Pro 4MB.....$55
Fire GL1000 Pro PCI or AGP 8MB.....$159
Viper S330 4MB AGP.....$99

MATROX
Mystique220 4MB SGRAM.....$99
Millennium II 4MB/8MB AGP.....$119/209

CONTROLLERS

ADAPTEC SCSI
AAA-131 RAID5 UW SCSI box.....$478
2940UW Ultra Wide SCSI kit.....$185
NCR SCSI
875 Ultra Wide SCSI.....$99
810 Fast SCSI 2.....$49

CD ROM & SOUND CARDS

Mitsumi CR-2600TE IDE CD Writer.....$319
32X Toshiba SCSI CD ROM.....$97
32X Mitsumi IDE CD ROM.....$62
420W Amplified Subwoofer speaker.....$42
Creative Labs
Sound Blaster AWE 64 Gold(retail box).....$145
Sound Blaster AWE64 Value.....$65
Ensoniq PCI Sound.....$39

SOFTWARE (SOLD WITH SYSTEM ONLY)

MS Window 98 New Relese version.....$99
MS Window 95 New Relese version.....$65
MS Office 97 small business edition.....$89
MS Word 97.....$25
MS Window NT 4.0 Server 5 Clients.....$498
MS Window NT 4.0 Work Station.....$136
Fax/Modems
Zoltrix 56K with voice, speakerphone, caller ID.....$53
Diamond Supra 56K V.90 PCI.....$66

US ROBOTICS
V.90 + X2 56K, internal.....$119
Sportster 33.6K , Int., #840.....$69
Sportster 56K V.90 + X2, external.....$162

SCSI & IDE HARD DRIVES

4.3/6.4/8.4GB U-DMA33 Maxtor.....$147/198/275
4.5/9.1/18GB Ultra Wide SCSI, IBM 7ms.....$388/689/1398
1.2/1.44 MB Teac Floppy Drive.....$43/$23
Iomega ZIP 100MB IDE/SCSI Internal drive.....$81/106
100MB ZIP disk.....$11

MONITORS

IIYAMA VISION MASTER (IDEK)
MT-9017E, 1600x1200@74Hz 17" .25 Diamondtron "1997 product of the year" PC Magazine.....$536
S-901GT, 1600x1200@80Hz, .22dp, 19".....$735
MT-9221, 1800x1440@74Hz, .28dp Diamondtron, 21".....$1099

MAG/ PRINCETON
E090, 19" .26dp 1600*1200.....$736
E075, 17" 1600x1200 .26dp.....$480

VIEWSONIC
G771 17" .28dp.....$429
PS790 19" .25dp.....$735
P810 21" .25dp 1600*1280.....$1056
V29GA 29" 1280*1024.....$1840

CASE & POWER SUPPLY

Supermicro 750A ATX Server with 300W power.....$175
Enlight Medium Tower, ATX 235W, 2 fan.....$69
230W Power supply AT/ATX.....$21/$39
300W Power supply AT/ATX.....$39/$61
many more good servers & cases in demo room.

NETWORKING - CERTIFIED DEALER FOR 3COM, INTEL AND CISCO NETWORK PRODUCTS.

Total solution for Networking design, installation & office automation.

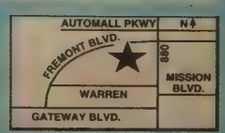
3Com 3C900 Combo PCI.....$85
3Com 3C905B TX 10/100MB PCI.....$65
Intel EtherExpress Pro/100+ PCI.....$53
3COM Office Connect Hub 8/TPO 8 ports (10MBPS).....$91
3COM Office Connect Hub TP16C 16 ports (10MBPS)..$235
3COM Office Connect Hub TP800 8 ports (100MBPS)..$379
Intel 8-port Fast Hub (100MBPS).....$379
3COM, Intel, CISCO Switch & Router.....$CALL
Intel Internet station.....$CALL
RJ45 15' Cat5 cable.....$5
Coaxel 25' cable.....$8

Prices and availability subject to change without notice.
Prices reflect cash discounts.
All purchases are under our terms and policies.

ACME MICRO-SYSTEM INC.
Since 1990

46500 Fremont Blvd., #716 • Fremont, CA 94538
(510) 226-6778 • FAX (510) 226-6773
Internet http://www.acmemicro.com

VISA MasterCard
M-F 9-6 / Sat. 12:30-5:30
email: sales@acmemicro.com



— THE BEST SOURCE FOR ALL YOUR COMPUTER NEEDS SINCE 1985 —

Networking and Internet/Intranet Services

ASCEND · IBM · Novell Certified NetWare Engineer · HEWLETT PACKARD · MICROSOFT WINDOWS NT READY-TO-RUN · 3Com

Microsoft · NOVELL.

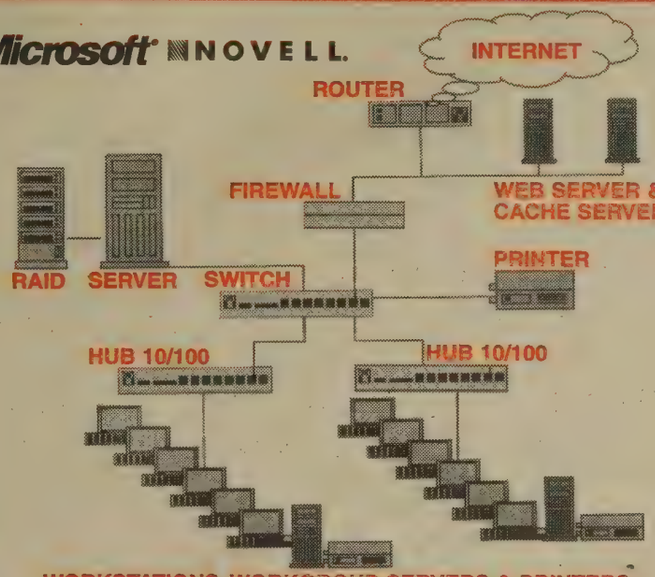
YOUR NETWORKING SOLUTION PARTNER

SPECIALIST FOR CORPORATIONS, GOVERNMENT & EDUCATIONAL

* CERTIFICATED NETWORK ENGINEER
* 10 YEARS NETWORKING EXPERIENCE
* INTERNET SITE & WEB PAGE DESIGN
* E-COMMERCE
* DESIGN & SETUP NETWORKING SYSTEMS
* COMPELETE INSTALLED OF HARDWARE & SOFTWARE
* ON-SITE SERVICE & TRAINING
* EXPERT TROUBLE SHOOTING
* QUICK RESPONSE TIME
* FREE ON-SITE NETWORKING CONSULTATIONS
* FREE DELIVERY.

FOR MORE INFORMATION VISIT OUR WEB SITE:

WWW.CSNTECH.COM



WORKSTATIONS, WORKGROUP SERVERS & PRINTERS

PRECONFIGURED WINDOWS NT 4.0 SERVER

- ASUS Dual PENTIUM® II SYSTEM BOARD
- 1 INTEL PENTIUM® II 300MHz CPU
- 128MB SDRAM 512K CACHE
- 9GB ULTRA-W SCSI HARD DRIVE
- ADAPTEC 3940 ULTRA-W SCSI CONTROLLER
- SEAGATE 8 GB FAST SCSI TAPE DRIVE
- TOSHIBA 24X CD-ROM DRIVE
- 1.44MB FLOPPY DRIVE
- DIAMOND STEALTH 3D 4MB SVGA CARD
- 15" MGC SVGA MONITOR
- INTEL 10/100TP ETHERNET CARD
- KEYTRNIC 104 KEYBOARD
- MS PS/2 MOUSE
- ATX FULL TOWER CASE W/350W PS
- MS WINDOWS **NT SERVER 4.0** (5 USERS)

FREE DELIVERY $3698

Value Office Computer Workstation MULTIMEDIA DELUXE SYSTEM

* TX PRO II MMX SYSTEM BOARD
* 512KB PIPELINE BURST CACHE
* 32MB SDRAM EXT TO 256MB
* FUJITSU 3.5GB ULTRA-DMA H/D
* 1.44MB FLOPPY DRIVE
* TOSHIBA 24X CD-ROM DRIVE
* DIAMOND SUPRA 56K FAX/MODEM
* BUILT-IN S3 VIRGE SVGA CARD
* ESS 3D STEREO SOUND CARD
* 104 KEYBOARD, MOUSE
* 100W STEREO SPEAKER
* MINI TOWER CASE
* MONITOR SOLD SEPERATELY

INTERNET READY

PENTIUM® MMX 200MHZ ..... $ 579
PENTIUM® MMX 233MHZ ..... $ 619
AMD K6 MMX 200 MHZ ..... $ 528
AMD K6 MMX 233 MHZ ..... $ 558

Home System Special PENTIUM® II MULTIMEDIA With MMX Technology & AGP

* INTEL 440LX CHIP PENTIUM(II SYSTEM
* 32MB SDRAM, 512K PIPLIN CAHCE
* 1.44MB FLOPPY DRIVE
  FUJITSU 3.5GB ULTRA-DMA HARD DRIVE
* 24X TOSHIBA CD-ROM DRIVE
* DIAMOND SUPRA PCI 56K FAX/MODEM
* ESS 3D STEREO SOUND CARD
* AGP 4 MB S3 3D ACCERATED SVGA CARD
* ENHANCED 104 KEYBOARD
* PS/2 MOUSE
* USB/ AGP/HIGH SPEED I/O PORTS
* 100W STEREO SPEAKER
* DELUXE MID TOWER CASE
* MONITOR SOLD SEPERATELY

PENTIUM® II 233MHz..... $ 739
PENTIUM® II 266MHz..... $798
PENTIUM® II 300MHz..... $ 969
PENTIUM® II 333MHz..... $ 1089

Office Master SUPER PERFORMANCE PENTIUM® II PROFESSIONA MULTIMEDIA SYSTEM,

* *INTEL SEATTLE 440BX SYSTEM BOARD
* *100MHZ B.S , 512K PIPEPLIN BURST CACHE
* 64MB SDRAM ,
* WD 6.5GB ULTRA-DMA HARD DRIVE
* TOSHIBA 32X CD-ROM
* 1.44MB FLOPPY DRIVE
* US ROBOTICS 56K FAX/MODE W/VOICE
* ATI 3D EXPERT @WORK AGP 4MB SVGA CARD
* YAMAHA+ CRYSTAL 3D STEREO SYSTEM
* 260W STEREO SURROUND SOUND SPEAKERS
* ERGONOMICE ENHANCED KEYBOARD,
* PS/2 MOUSE
* USB/ AGP/PSII/HIGH SPEED I/O PORTS
* ATX DELUXE MID TOWER CASE
*MONITOR SOLD SEPERATELY

PENTIUM® II 233MHz $1198
PENTIUM® II 266MHz $1269
PENTIUM® II 300MHz $1438
PENTIUM® II 333MHz $1569
PENTIUM® II 400MHz $1968

UPGRADE SPECIAL:

UPGRADE ANY OF YOUR OLD PC TO

PENTIUM MMX 200MHz SYSTEM .. $269
PENTIUM MMX 233MHz SYSTEM .. $309
PENTIUM II LX440 233MHz SYSTEM $449
PENTIUM II LX440 266MHz SYSTEM $499

*PENTIUM II 440LX SYSTEM BOARD
*PENTIUM MMX TXPRO SYSTEM BOARD.
*512KB PIPELINE CACHE
*32MB SDRAM INSTALLED
*AGP 4MB S3 ACCERATED SVGA CARD (PII)
*S3 VIRGE PCI SVGA (MMX)
*ESS 3D STEREO SOUND CARD
*USB/ AGP/PSII/HIGH SPEED I/O PORTS
*FREE TOWER CASE W/250W PS

MONTHLY SPECIAL

CD-ROM & SOUND CARD:

TOSHIBA 24X CD-ROM $58
TOSHIBA 32X CD-ROM $72
SOUND BLASTER 64 AWE $65
YAMAHA SOUND CARD $15
SONY SCSI CDR 2XW /6XR $359

SYSTEM BOARDS:

PENTIUM MMX TXPRO SYSTEM BOARD
*BUILD-IN ESS SOUND CARD,
*BUILT-IN S3 VIRGE PCI SVGA..... $79

PENTIUM II 440LX SYSTEM BOARD
*W/ 4MB AGP S3 3D SVGA CARD.
*BUILT-IN ESS 3D SOUND CARD
*USB/AGP /PSII/SUPER IO PORTS..... $139

INTEL PENTIUM II ATALANA.440LX..... $148
INTEL PENTIUM II SEATTLE 440BX..... $198

HARD DRIVES

FUJISU (ULTRA-DMA FAST IDE)
3.5GB/4.3/6.4GB ..... $155 /$178 / $/$219
WD(ULTRA-DMA) 6.3GB $239
IOMEGA 100MB ZIPDRIVE..... $85

MONITOR

TOUCH 15" DIGITAL N/I 1280X1024 .28 169
TOUCH 17" DIGITAL N/I 1280X1024 .28 ..... $299
PROTON 17" DIGITAL N/I 1280X1024 .27 ..... $315

FAX/MODEM W/VOICE

US ROBUTICS 56K..... $98
DIAMOND SUPRA PCI 56K..... $69

CPU & RAM CALL FOR TODAY'S BEST PRICES

INTELPENTIUM MMX CPU
200MHZ /233MHZ ..... $112./$139
INTEL PENTIUM II CPU
PII 233 /266/300 MHZ CPU..... $198 / $265/ $398
PII 333 /350/400MHZ CPU..... $529 / $599 / $849
RAM 16MB/32MB EDO SIMM $19/ $38
32MB /64MB SDRAM..... $.39 /$ 89

VIDEO COFERRENCING KIT C.U.C.U.S..... $149
COMS..... $109

SCANNER

3D COLOR SCANNER..... $95
ASER SCSI S 310S SCANNER $99

NETWORKING

3COM 3C905-TX..... $65
INTEL FAST ETHERNET 10/100 ..... $54

LANPRO :

8 PORT 10BASE-T HUB $49
16 PORT 10BASE-T +1 BNC HUB $99
8 PORT 10/100 BASE-T HUB $259
16 PORT FASE ETNERNET HUB $578
PCI 10/100 BASE-T ETHERNET CARD..... $29

COMPUTER SOURCE

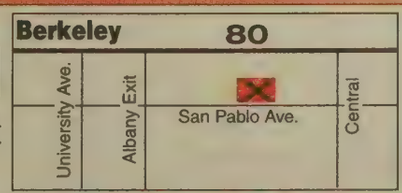
LEADING IN COMPUTER SYSTEMS & NETWORKING TECHNOLOGY

VISA · MasterCard

Prices subject to change without notice.
Not responsible for typographical errors.

HTTP:\\WW.CSNTECH.COM (510)526-7733 • FAX: (510)526-7723

518 San Pablo Avenue, Albany, CA 94706 • Hours: M–F 10–7, Sat 10–5 *Government, Corporate, and School POs Welcome!*



advertiser•by•cityindex

For your convenience, here is a list of advertisers by county and city. Please see the advertiser index on page 212 for an alphabetical listing.

Alameda County

Alameda
Future Computing Solutions 91
Host Pro....18S

Albany
Computer Source 219
DJ Computers 145
Host Pro....18S
PC Ten 113
UMiracle MicroSystems 186–189

Berkeley
Hi-Tech USA 213–217
Host Pro....18S
Laitron Computer 76–81
M.A.C. 135

Dublin
Comtek Computer 93
Host Pro....18S

Emeryville
Host Pro....18S
LANOP 181

Fremont
A&A Technology....99
Acme Microsystems 218
Arescom....37
BG Computers 43
Bold Data....18F, 18G
Central Computer....52, 56–65
Computer Renaissance 24
Cypress Computers 33
Cyrix 2K
Envisions 25
Golden Micro Computers 105
Host Pro....18S
Hypersurf 144
J&K Technology....19
Laitron Computer 76–81
Media On 18B, 18C
Network Associates 137
UMiracle MicroSystems 186–189
USM Distributors 151
U-tron....18H–18K
Variant Microsystems 170
WeirdStuff Software....149
www.Websel.com....151

Hayward
Chem USA Corporation 2L
CyberVision 2B
Host Pro....18S
LJ Systems 18P, 18Q
PC Doctor 49
T-Zone Corporate Research 21

Newark
Chem USA Corporation 2L

Oakland
Host Pro....18S
In Reach 18A
PC Ten 113

Pleasanton
Diamond Lane 147
Host Pro....18S
Laitron Computer 76–81
NCAL Computer Source 68, 69

Union City
Granite Digital 40
Host Pro....18S

Contra Costa County

Concord
AIM Computers 114
Host Pro....18S
Value-Net Internet 163

El Cerrito
Host Pro....18S
Perfect Solutions Multimedia 139

Lafayette
EDC Systems 82
Host Pro....18S

Pleasant Hill
Computer Renaissance 24
Computown 29
Host Pro....18S
Laitron Computer 76–81

Richmond
Evergreen Computer 152, 153
Host Pro....18S

Walnut Creek
Host Pro....18S
Value Net 163
Verio N. CA. 159

Marin County

Mill Valley
Host Pro....18S
Marketpro Shows 162

Novato
BCSA Computers 47
Computown 29
Host Pro....18S

San Anselmo
HiQ Systems 18O
Host Pro....18S

San Rafael
Hi-Q Systems....18O
Host Pro....18S
Marin Computer Resource Center....18D, 18E

Sacramento County

Sacramento
Evernet Education Services....132
Halted Specialties 75
Hi-Q Systems....18O
Host Pro....18S
In Reach 18A
JPS.Net....18N
Smart Page 168

San Francisco County

San Francisco
9 Net Avenue 2E
A&A Technology....99
Beta Nineties....16
Central Computer System....52, 56–65
Computer Renaissance 24
Computown 29
CPU & Memory Exchange Club 155
Decaview 2F, 2G, 18M
Evernet Education 132
Hi-Tech USA 213–217
Host Pro....18S
IDT Winchip C6 ....2I
Iiyama North America, Inc. 107, C3
InReach Internet 18A
ITS CD 24
K Square Computers 67
MacByte 14
Microsoft....2C
Sceptre....2A
Slip.Net 7
Starlite Electronics....22
Sweet Memory 15
UMiracle....186–189
USM Systems....151
Westech Micro 212

San Joaquin County

Stockton
Hi-Q Systems....18O
Host Pro....18S

San Mateo County

Belmont
Belmont Systems 84, 85
Host Pro....18S

Burlingame
Decaview 2F, 2G, 18M
Host Pro....18S
LANOP 181
Robert Austin Corporation 179

Daly City
Host Pro....18S

Foster City
Host Pro....18S
Laitron Computers 100–105
Starlite Electronics....22

Millbrae
Host Pro....18S
Laitron Computer 76–81

Redwood City
Host Pro....18S
Netis Technology 103

San Carlos
Belmont Systems 84, 85
Host Pro....18S

San Mateo
Hi-Tech USA 213–217
Host Pro....18S

South San Francisco
Compu 11 4
FastLink 101
Host Pro....18S
Mactica....46
Universal Computer Products....169
USM Distributors 151

Santa Clara County

Campbell
Cybertek Computer....140
Host Pro....18S

Cupertino
Host Pro....18S
Lex Micro 127
Sceptre....2A

Los Altos
Host Pro....18S
IQ INFoQuest Computer 38, 39

Menlo Park
Hi-Tech USA 213–217
Host Pro....18S

Milpitas
American Multi Systems 28
Appro International....2J
A.R.T. Multimedia Systems....115
Besq Systems 12, 13
Golden Valley Systems 51
Hi-Tech USA 213–217
Host Pro....18S
Linden Micro Tech....122, 123
Netis Technology 103
Proven Technology 27, 174
Quick Data....157
Sceptre....2A
Supercom C2, C3
World Net Microsystems 210, 211

Mt. View
Arise Computers....71
Best Internet....162
Computown 29
Cyrix 2K
Host Pro....18S

Palo Alto
Disk Drive Depot 3
Host Pro....18S
Palo Alto Micro 18

San Jose
9 Net Avenue 2E
Acer Factory Outlet....18
AMT International 108, 109
Bay Area Micro 87–89
Benitek Computers....83
BG Computers 43
Century Graphics....181
Chicotec....92
CKNS Internet....40
Computer Renaissance 24
Computer System Outlet 34
Computer Xtras Xpress 82
Computown 29
CyberVision 2B
Decaview 2F, 2G, 18M
Dominocomp....95
Farsio Computers....34
For U Computers 98
Host Pro....18S
IDT Winchip C6 ....2I
Iiyama North America, Inc. 107, C3
Laitron Computers 100–105
LANOP 181
Meridian Computer Systems 31
MIC Computer 5
Microsoft....2C
Micro Sonic Computer....45
Pixel/USA....96, 97
RIX Technology 8
Silicon Valley Square 174
Siliconrax 2D
TrueComp America Computer Center 72, 73
YNN 146

Santa Clara
Alpha Telecom, Inc. 104
BG Computers 43
Callan Corp. 143, 147
CeLAN Technology 171
Central Computer....52, 56–65
Comp Express 48
Comtek Computer 93
CPU & Memory Exchange Club 155
Cypress Computer 33
Cyrix 2K
Edimax Computer 106, 120
Fortune Micro 112
Halted Specialities....75
HD Computer....35
Hitron Systems....118, 119
Host Pro....18S
Iconix Computer 174
IDT Winchip C6 ....2I
Iiyama North America, Inc. 107, C3
Kingstar Computer 9, 126
Micro Sonic Computer....45
Verio N. CA. 159

Sunnyvale
9 Net Avenue 2E
Aroma Computer....110, 111
BG Computers 43
Cyber Cafe 36
CyberVision 2B
Cypress Computers 33
Disk Drive Depot 3
Hi-Q Systems....18O
Hi Tech USA....213–217
HKG Computers....133
Host Pro....18S
Iiyama North America, Inc. 107, C3
Legend Computer....11
Microsoft....2C
Nebucon, Inc....2H
Network Associates 137
Siliconrax 2D
T-Zone Corporate Research 21
United Microsystems 18L
USM Distributors 151
Weird Stuff Warehouse 149

Santa Cruz County

Santa Cruz
Host Pro....18S

Solano County

Vallejo
Host Pro....18S

Sonoma County

Cotati
Halted Specialities 75
Host Pro....18S

Santa Rosa
Host Pro....18S

Southern California

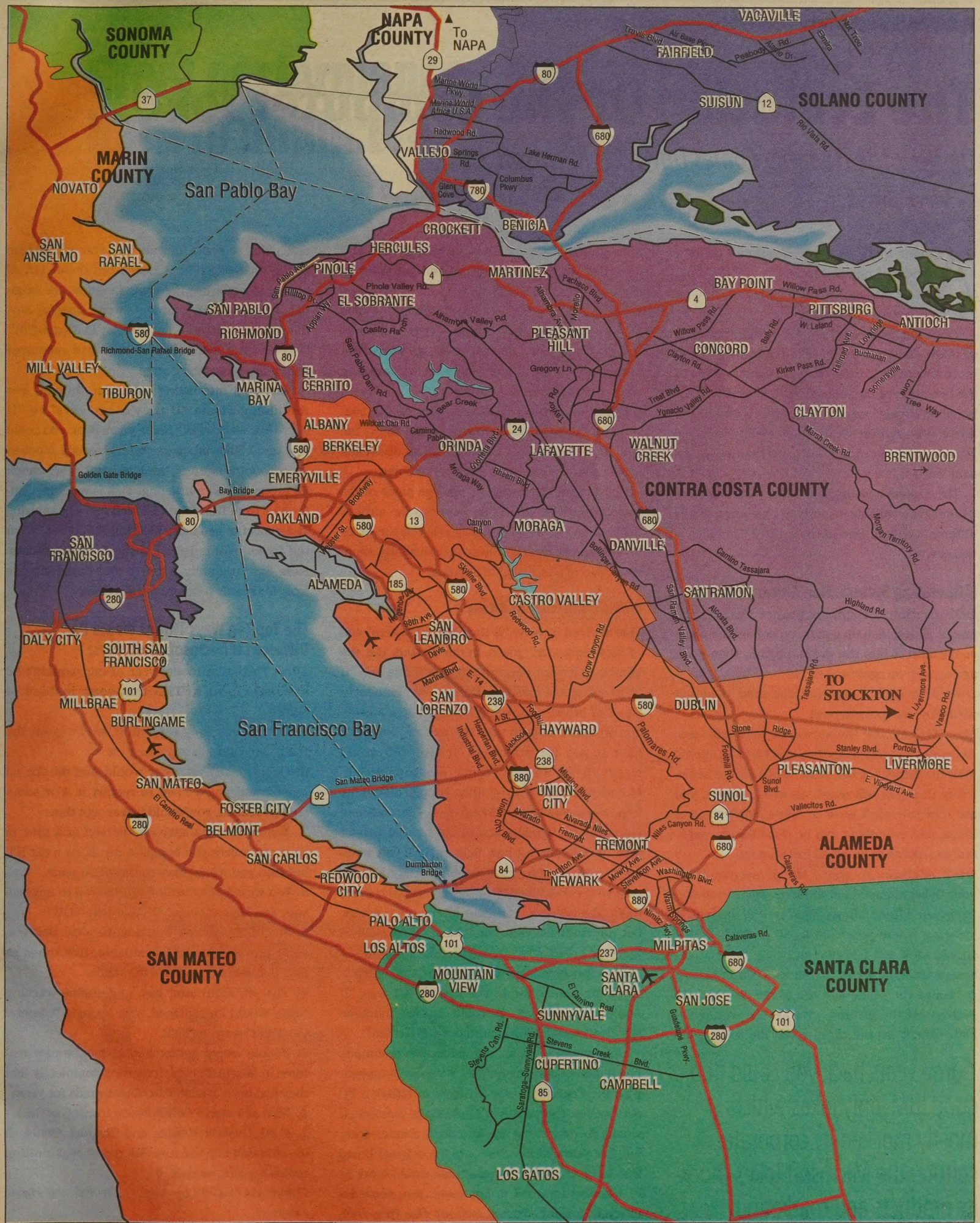
9 Net Avenue, LA 2E
AAA Media 44
Compu D....154, 180, 190
CyberVision, Walnut....2B
Cyrix, City of Industry....2K
Electriciti 18T
Evernet Education 132
Future Computing Solutions 91
Host Pro....18S
IDT Winchip C6 ....2I
Iiyama North America, Inc., Costa Mesa 107, C3
Input Automation, Torrance 23
LANOP 181
MacByte 14
Microsoft....2C
Sceptre, City of Industry 2A

Stanislaus County

Modesto
Aroma Computer....110, 111
Host Pro....18S

Out of State

9 Net Avenue, East Rutherford, NJ 2E
Microsoft, Redmond, WA 2C


SONOMA COUNTY
NAPA COUNTY
To NAPA
VACAVILLE
FAIRFIELD
SUISUN
SOLANO COUNTY
MARIN COUNTY
NOVATO
San Pablo Bay
VALLEJO
BENICIA
CROCKETT
HERCULES
PINOLE
MARTINEZ
SAN ANSELMO
SAN RAFAEL
SAN PABLO
EL SOBRANTE
RICHMOND
BAY POINT
PITTSBURG
ANTIOCH
PLEASANT HILL
CONCORD
MILL VALLEY
TIBURON
MARINA BAY
EL CERRITO
ALBANY
BERKELEY
ORINDA
LAFAYETTE
WALNUT CREEK
CLAYTON
BRENTWOOD
CONTRA COSTA COUNTY
EMERYVILLE
OAKLAND
MORAGA
DANVILLE
SAN FRANCISCO
ALAMEDA
CASTRO VALLEY
SAN RAMON
DALY CITY
SOUTH SAN FRANCISCO
SAN LEANDRO
MILLBRAE
BURLINGAME
San Francisco Bay
SAN LORENZO
HAYWARD
DUBLIN
TO STOCKTON
PLEASANTON
LIVERMORE
SUNOL
SAN MATEO
FOSTER CITY
BELMONT
SAN CARLOS
UNION CITY
FREMONT
NEWARK
REDWOOD CITY
ALAMEDA COUNTY
PALO ALTO
LOS ALTOS
MILPITAS
SAN MATEO COUNTY
MOUNTAIN VIEW
SANTA CLARA
SAN JOSE
SANTA CLARA COUNTY
SUNNYVALE
CUPERTINO
CAMPBELL
LOS GATOS
Marine World Pkwy.
Redwood Rd.
Lake Herman Rd.
Columbus Pkwy
Glen Cove
Pinole Valley Rd.
Hilltop Dr.
Appian Wy.
Alhambra Valley Rd.
Castro Ranch
Pacheco Blvd
Morello
Alhambra Ave
Willow Pass Rd.
Bailey Rd.
W. Leland
Railroad Ave.
Loveridge
Buchanan
Somersville
Clayton Rd.
Kirker Pass Rd.
Treat Blvd.
Yonacio Valley Rd.
Marsh Creek Rd
Tree Way
Gregory Ln.
Taylor Rd.
San Pablo Dam Rd
Bear Creek
Wildcat Can Rd
Camino Pablo
Moraga Way
Rheem Blvd
Canyon Rd
Broadway
Bay Bridge
Golden Gate Bridge
Richmond-San Rafael Bridge
Bollinger Canyon Rd
Camino Tassajara
Morgan Territory Rd.
Alcosta Blvd.
San Ramon Valley Blvd.
Crow Canyon Rd.
Redwood Rd.
Skyline Blvd
Foothill
Davis
Marina Blvd.
E. 14
A St.
Hesperian Blvd.
Industrial Blvd.
Jackson
Foothill Rd.
Palomares Rd
Stone
Ridge
Stanley Blvd.
Portola
Sunol Blvd.
E. Vineyard Ave.
Vallecitos Rd.
Tassajara Rd.
N. Livermore Ave.
Vasco Rd.
Niles Canyon Rd.
Alvarado
Alvarado-Niles
Fremont
Union City Blvd.
Mission Blvd.
Thornton Ave.
Mowry Ave.
Stevenson Ave.
Washington Blvd.
Calaveras Rd.
Warm Springs
Nimitz Pkwy
San Mateo Bridge
Dumbarton Bridge
El Camino Real
Stevens Creek
Blvd.
Guadalupe Pkwy.
Stevens Can. Rd.
Saratoga-Sunnyvale Rd.
37
29
80
12
680
780
4
580
13
24
185
238
880
92
84
101
237
280
85

The Evolution Of The Computer Joke

Or, How The Hammer Comes Down On Microsoft

By John C. Dvorak

About 10 years ago I attempted to do a book of computer humor. At the time there was so little available that I could barely get a column out of it.

Since the dawn of the Web-enabled exchange of jokes, there's a ton of material available. But more interesting than the jokes themselves is the evolution of the jokes from general to specific. The target, more and more, has been Microsoft—at least for the more elaborate jokes. Here is a series of similar gags that appeared over the last few years.

The earliest type of gag was the relational joke where you'd ridicule something by putting it in a different context. One of the earliest examples is this one:

If Operating Systems Ran Airlines

DOS Airline: Everybody pushes the airplane until it glides; then they jump on and let the plane coast until it hits the ground again, then push again, jump on again and so on.

DOS with QEMM Airline: The same thing but with more leg room to push.

Mac Airline: All the stewards, stewardesses, captains, baggage handlers, and ticket agents look the same, act the same, and talk the same. Every time you ask questions about details, you are told you don't need to know, don't want to know, and everything will be done for you without you having to know, so just shut up.

OS/2 Airline: To board the plane, you have your ticket stamped ten different times by standing in ten different lines. Then you fill out a form showing where you want to sit and whether it should look and feel like an ocean liner, a passenger train, or a bus. If you succeed in getting on board the plane and the plane succeeds in getting off the ground, you have a wonderful trip...except for the times when the rudder and flaps get frozen in position, in which case you have time to say your prayers and get yourself prepared before the crash.

Windows Airline: The airport terminal is nice and colorful, with friendly stewards and stewardesses, easy access to the plane, an uneventful takeoff...then the plane blows up without any warning whatsoever.

NT Airline: Everyone marches out on the runway, says the password in unison, and forms the outline of an airplane. Then they all sit down and make a whooshing sound like they're flying.

UNIX Airline: Everyone brings one piece of the plane with them when they come to the airport. They all go out on the runway and put the plane together piece by piece, arguing constantly about what kind of plane they're building.

Making Toasters And Cars

This evolved into the "If they Made toasters" and "if they made cars" jokes. In the toasters gag, the Microsoft aspect became more pronounced. "If Microsoft made toasters...Every time you bought a loaf of bread, you would have to buy a toaster. You wouldn't have to take the toaster, but you'd have to pay for it anyway. Toaster '95 would weigh 15,000 pounds (hence requiring a reinforced steel countertop), draw enough electricity to power a small city, take up 95% of the space in your kitchen, would claim to be the first toaster that lets you control how light or dark you wanted your toast to be, and would secretly interrogate your other appliances to find out who made them. Everyone would hate Microsoft toasters, but nonetheless would buy them since most of the good bread only works with their toasters."

This was obviously written by an Apple fanatic since the punch line to the longish list was, "If Apple made toasters...It would do everything the Microsoft toaster does, but five years earlier."

Since these jokes are passed around and modified it didn't take long for a new version to appear with the final punch line changed to reflect a PC perspective. It became: "If Apple made toasters...It would do everything the Microsoft toaster does, but five years earlier...but only the original bread that came from the manufacturer would work in it...when you needed to buy more...you needed a different toaster...from somebody else (but wait, new plans at Apple indicate that you will be able to buy that different toaster from them...but of course it won't use the same bread as the original...and as a matter of fact...won't operate anything like the old one...but they say that's good!!!)"

Over time, I'm sure this joke will reemerge with more sarcasm.

The most interesting evolution, though, was the change from "If they made cars" to "If Microsoft made cars." Some years back you could find good IBM-only jokes which mostly mocked its corporate culture; the Microsoft jokes mock its products and marketing. This is a distinct difference from IBM jokes. I found this gag amusing and expect to see more like it in the future. From the looks of this joke I suspect that someone from Sun originally wrote it and that someone from Microsoft re-wrote the last lines.

The Top Ten Ways Things Would Be Different If Microsoft Built Cars:

10. A Particular model year of car wouldn't be available until AFTER that year, instead of before.

9. Every time they repainted the lines on the road, you'd have to buy a new car.

8. Occasionally your car would just die for no reason and you'd have to restart it. For some strange reason, you would just accept this.

7. You could only have one person at a time in your car, unless you bought a car '95 or a car NT, but then you would have to buy more seats.

6. You would be constantly pressured to upgrade your car. Wait a second, it's that way NOW!

5. Sun Microsystems would make a car that was solar powered, twice as reliable, five times as fast, but only ran on 5% of the roads.

4. The oil, alternator, gas, and engine warning lights would be replaced with a single "General Car Fault" warning light.

3. People would get excited about the new features in Microsoft cars, forgetting completely that they had been available in other brands for years.

2. We'd all have to switch to Microsoft Gas (tm).

1. Ford, General Motors, and Chrysler would all be complaining because Microsoft was putting radios in all its models. ◆

Copyright © 1998 by John C. Dvorak. All rights reserved.

Some years back you could find good IBM-only jokes which mostly mocked its corporate culture; the Microsoft jokes mock its products and marketing.

Great performance...easy to recognize, hard to duplicate.

21" 110 khz
$1059

Winning as many awards as we have sets iiyama apart from the competition. And for good reason. All iiyama monitors, including our newest line of 21" CRTs are engineered to meet the highest standards of quality and performance, allowing the user to run the monitor at its highest specified performance and refresh rate.

Consistent quality is maintained because iiyama monitors come from our ISO 9001 certified factories in Japan. We don't outsource or OEM our monitors, so we can always be 100% certain that our high standards are met.

So for high performance at an unbeatable price... get the monitor that can't be duplicated.

	Model/ Viewable Area	Dot Pitch/ CRT Type	Max. Horizontal Scan Rate	Max. Resolution	Est. Street Price
21"	**VisionMaster Pro 502 (19.5" VIS)**	0.28mm/AG	110khz	1800 x 1440@74hz	$1,059
	VisionMaster Pro 501 (19.5" VIS)	0.28mm/AG	96khz	1600 x 1200@75hz	$999
	VisionMaster 502 (19.5" VIS)	0.27mm/dp	110khz	1800 x 1440@74hz	$1,059
	VisionMaster 501 (19.5" VIS)	0.27mm/dp	96khz	1600 x 1200@75hz	$999
19"	**VisionMaster 450 (18.0" VIS)**	0.26mm/dp	102khz	1600 x 1200@80hz	$699
17"	**VisionMaster Pro 17 (15.9" VIS)**	0.25mm/AG	92khz	1600 x 1200@74hz	$579
	VisionMaster 17ES (15.7" VIS)	0.26mm/dp	86khz	1600 x 1200@69hz	$541
	VisionMaster 17 (15.7" VIS)	0.26mm/dp	86khz	1600 x 1200@69hz	$464
15"	**VisionMaster 350 (13.7" VIS)**	0.28mm/dp	69khz	1280 x 1024@60hz	$248

TCO'99 ECOLOGY • ENERGY ERGONOMICS • EMISSIONS

iiyama

RSVP RELIABILITY SERVICE VALUE PERFORMANCE

ISO 9001

For the name of your local dealer call: (800) 594-7480 • www.iiyama.com

© 1998 iiyama North America, Inc. All rights reserved. iiyama, the iiyama logo, and the RSVP logo are trademarks of iiyama North America, Inc. All other trademarks are the properties of their respective owners.
**8 hours a day/5 days a week/50 weeks a year. MTBF excludes CRT life, which may vary from model to model. Prices and specifications are valid as of 02/05/98. Estimated Street Price is shown, actual price may vary.
Prices do not include shipping, handling and any applicable taxes. Specifications are subject to change without notice. As an Energy Star™ Partner, iiyama has determined that this product meets the Energy Star™ Guidelines for energy efficiency.
For more information, please write us at 575 Anton Blvd., Suite 590, Costa Mesa, CA 92626. 800/594-7480, 714/437-5111; Fax:714/437-5982; Home Page: www.iiyama.com

PC MAGAZINE Best of 1997
January 6, 1998
VisionMaster Pro 17

CADALYST LABS 1998
Perfect Five-Star Rating
January 1998
VisionMaster 450
VisionMaster Pro 500

ComputerLife
Perfect Five-Star Rating
November 1997
VisionMaster Pro 17

Performance & Technical Excellence
March 1997
VisionMaster Pro 21

MW EDITOR'S CHOICE
Six Time Winner
Jan 1997, Feb 1997, March 1997, April 1997, May 1997, June 1997
VisionMaster Pro 21

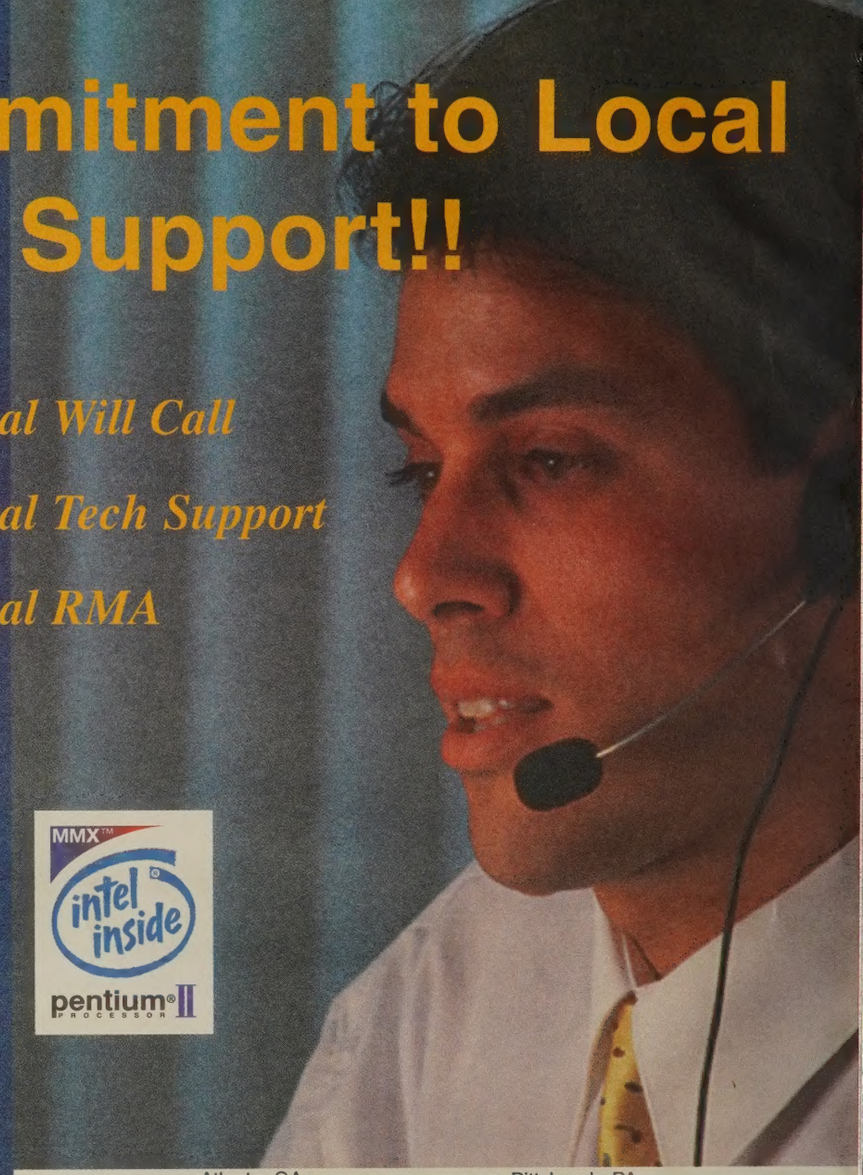
PC MAGAZINE EDITORS' CHOICE
October 7, 1997
VisionMaster Pro 17

CADALYST LABS 1998
March 1997
VisionMaster Pro 21

PC WORLD BEST BUY
Seven Time Winner
July 1996, Jan 1997, March 1997, July 1997, Sept 1997, Jan 1998, May 1998
VisionMaster Pro 17
April 1998
VisionMaster 450

Supercom...Commitment to Local Customer Support!!

- *Local Will Call*
- *Local Tech Support*
- *Local RMA*



Supercom is your *local* PC components distributor and manufacturer of custom computer systems.

TOUCH 400 Series Systems

Featuring Intel® Pentium® Processors with MMX™ Technology

TOUCH 500 Series Systems

Featuring Intel Pentium II Processors

TOUCH 600 Series Systems

Featuring Intel Pentium II Processors

TOUCH Enterprise Systems

Server Solutions, we built ours, let us build yours!

- Atlanta, GA
- Boston, MA
- Buffalo, NY
- Chicago, IL
- Cleveland, OH
- Columbus, OH
- Dallas, TX
- Denver, CO
- Houston, TX
- Kansas City, KS
- Miami, FL
- Minneapolis, MN
- Edison, NJ
- Phoenix, AZ
- Pittsburgh, PA
- Portland, OR
- San Antonio, TX
- San Diego, CA
- San Jose, CA
- Salt Lake City, UT
- Seattle, WA
- Vienna, VA
- Toronto
- Vancouver
- Montreal
- London, England
- Beijing, China

...and growing!

Call your local Supercom office at

1-800-888-1888

www.supercom.com

ISO 9002 Certified

Supercom

The Intel Inside Logo and Pentium logos are registered trademarks and MMX is a trademark of Intel Corporation. All other product and company names are the trademarks or registered trademarks of their respective companies.